

# CALIFORNIA HIGH-SPEED TRAIN

Project Environmental Impact Report/Environmental Impact Statement

**FINAL**

Merced to Fresno Section  
Project EIR/EIS  
**Volume III:**

**Section C1 – Alignment Plans**  
BNSF Alternative with Ave 24 Wye

April 2012



**CALIFORNIA**  
High-Speed Rail Authority



**U.S. Department of Transportation**  
Federal Railroad Administration

SHT NO.	DWG NO.	DRAWING TITLE LINE 3	DRAWING TITLE LINE 4	DRAWING TITLE LINE 5	DRAWING TITLE LINE 6
T0010-A		BNSF ALIGNMENT	AVENUE 24	INDEX OF DRAWINGS	SHEET 1 OF 1
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T1300-A		BNSF MAIN LINE	AVENUE 24	PLAN AND PROFILE	STA 892+89.69 TO STA 930+00
T1301-A		BNSF MAIN LINE	AVENUE 24	PLAN AND PROFILE	STA 930+00 TO STA 985+00
T1302-A		BNSF MAIN LINE	AVENUE 24	PLAN AND PROFILE	STA 985+00 TO STA 1040+00
T1303-A		BNSF MAIN LINE	AVENUE 24	PLAN AND PROFILE	STA 1040+00 TO STA 1095+00
T1304-A		BNSF MAIN LINE	AVENUE 24	PLAN AND PROFILE	STA 1095+00 TO STA 1150+00
T1305-A		BNSF MAIN LINE	AVENUE 24	PLAN AND PROFILE	STA 1150+00 TO STA 1205+00
T1306-A		BNSF MAIN LINE	AVENUE 24	PLAN AND PROFILE	STA 1205+00 TO STA 1260+00
T1307-A		BNSF MAIN LINE	AVENUE 24	PLAN AND PROFILE	STA 1260+00 TO STA 1315+00
T1308-A		BNSF MAIN LINE	AVENUE 24	PLAN AND PROFILE	STA 1315+00 TO STA 1370+00
T1309-A		BNSF MAIN LINE	AVENUE 24	PLAN AND PROFILE	STA 1370+00 TO STA 1425+00
T1310-A		BNSF MAIN LINE	AVENUE 24	PLAN AND PROFILE	STA 1425+00 TO STA 1480+00
T1311-A		BNSF MAIN LINE	AVENUE 24	PLAN AND PROFILE	STA 1480+00 TO STA 1535+00
T1312-A		BNSF MAIN LINE	AVENUE 24	PLAN AND PROFILE	STA 1535+00 TO STA 1590+00
T1313-A		BNSF MAIN LINE	AVENUE 24	PLAN AND PROFILE	STA 1590+00 TO STA 1645+00
T1314-A		BNSF MAIN LINE	AVENUE 24	PLAN AND PROFILE	STA 1645+00 TO STA 1700+00
T1315-A		BNSF MAIN LINE	AVENUE 24	PLAN AND PROFILE	STA 1700+00 TO STA 1755+00
T1316-A		BNSF MAIN LINE	AVENUE 24	PLAN AND PROFILE	STA 1755+00 TO STA 1810+00
T1317-A		BNSF MAIN LINE	AVENUE 24	PLAN AND PROFILE	STA 1810+00 TO STA 1865+00
T1318-A		BNSF MAIN LINE	AVENUE 24	PLAN AND PROFILE	STA 1865+00 TO STA 1890+17.44
T1111-A		BNSF MAIN LINE		PLAN AND PROFILE	STA 890+17.44 TO STA 920+00
T1112-A		BNSF MAIN LINE		PLAN AND PROFILE	STA 920+00 TO STA 975+00
T1113-A		BNSF MAIN LINE		PLAN AND PROFILE	STA 975+00 TO STA 1030+00
T1114-A		BNSF MAIN LINE		PLAN AND PROFILE	STA 1030+00 TO STA 1085+00
T1115-A		BNSF MAIN LINE		PLAN AND PROFILE	STA 1085+00 TO STA 1140+00
T1116-A		BNSF MAIN LINE		PLAN AND PROFILE	STA 1140+00 TO STA 1195+00
T1117-A		BNSF MAIN LINE		PLAN AND PROFILE	STA 1195+00 TO STA 1250+00
T1118-A		BNSF MAIN LINE		PLAN AND PROFILE	STA 1250+00 TO STA 1305+00
T1119-A		BNSF MAIN LINE		PLAN AND PROFILE	STA 1305+00 TO STA 1360+00
T1120-A		BNSF MAIN LINE		PLAN AND PROFILE	STA 1360+00 TO STA 1415+00
T1121-A		BNSF MAIN LINE		PLAN AND PROFILE	STA 1415+00 TO STA 1470+00
T1122-A		BNSF MAIN LINE		PLAN AND PROFILE	STA 1470+00 TO STA 1525+00
T1123-A		BNSF MAIN LINE		PLAN AND PROFILE	STA 1525+00 TO STA 1580+00
T1124-A		BNSF MAIN LINE		PLAN AND PROFILE	STA 1580+00 TO STA 1635+00
T1125-A		BNSF MAIN LINE		PLAN AND PROFILE	STA 1635+00 TO STA 1690+00
T1126-A		BNSF MAIN LINE		PLAN AND PROFILE	STA 1690+00 TO STA 1745+55.75
T1127-A		BNSF MAIN LINE		PLAN AND PROFILE	STA 1713+98 TO STA 1748+00
T1128-A		BNSF MAIN LINE		PLAN AND PROFILE	STA 1748+00 TO STA 1801+61.52
T1200-A		BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 4302+03.01 TO STA 4345+00
T1201-A		BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 4345+00 TO STA 4400+00
T1202-A		BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 4400+00 TO STA 4455+00
T1203-A		BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 4455+00 TO STA 4510+00
T1204-A		BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 4510+00 TO STA 4565+00

SHT NO.	DWG NO.	DRAWING TITLE LINE 3	DRAWING TITLE LINE 4	DRAWING TITLE LINE 5	DRAWING TITLE LINE 6
T1205-A		BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 4565+00 TO STA 4620+00
T1206-A		BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 4620+00 TO STA 4675+00
T1207-A		BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 4675+00 TO STA 4730+00
T1208-A		BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 4730+00 TO STA 4785+00
T1209-A		BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 4785+00 TO STA 4840+00
T1210-A		BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 4840+00 TO STA 4895+00
T1211-A		BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 4895+00 TO STA 4950+00
T1212-A		BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 4950+00 TO STA 5005+00
T1213-A		BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 5005+00 TO STA 5060+00
T1214-A		BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 5060+00 TO STA 5115+00
T1215-A		BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 5115+00 TO STA 5170+00
T1216-A		BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 5170+00 TO STA 5225+00
T1217-A		BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 5225+00 TO STA 5280+00
T1218-A		BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 5280+00 TO STA 5335+00
T1219-A		BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 5335+00 TO STA 5390+00
T1220-A		BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 5390+00 TO STA 5445+00
T1221-A		BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 5445+00 TO STA 5500+00
T1222-A		BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 5500+00 TO STA 5555+00
T1223-A		BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 5555+00 TO STA 5610+00
T1224-A		BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 5610+00 TO STA 5665+00
T1225-A		BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 5665+00 TO STA 5720+00
T1226-A		BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 5720+00 TO STA 5775+00
T1227-A		BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 5775+00 TO STA 5830+00
T1228-A		BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 5830+00 TO STA 5885+00
T1229-A		BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 5885+00 TO STA 5940+00
T1230-A		BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 5940+00 TO STA 5995+00
T1231-A		BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 5995+00 TO STA 6050+00
T1232-A		BNSF MERCED CONNECTION	AVE 21 / AVE 24	PLAN AND PROFILE	STA 6050+00 TO STA 6066+12.20
T1350-A		BNSF WYE - NB CONNECTION	AVENUE 24	PLAN AND PROFILE	STA 104+65.02 TO STA 130+00
T1351-A		BNSF WYE - NB CONNECTION	AVENUE 24	PLAN AND PROFILE	STA 130+00 TO STA 185+00
T1352-A		BNSF WYE - NB CONNECTION	AVENUE 24	PLAN AND PROFILE	STA 185+00 TO STA 240+00
T1353-A		BNSF WYE - NB CONNECTION	AVENUE 24	PLAN AND PROFILE	STA 240+00 TO STA 295+00
T1354-A		BNSF WYE - NB CONNECTION	AVENUE 24	PLAN AND PROFILE	STA 295+00 TO STA 350+00
T1355-A		BNSF WYE - NB CONNECTION	AVENUE 24	PLAN AND PROFILE	STA 350+00 TO STA 405+00
T1356-A		BNSF WYE - NB CONNECTION	AVENUE 24	PLAN AND PROFILE	STA 405+00 TO STA 460+00
T1357-A		BNSF WYE - NB CONNECTION	AVENUE 24	PLAN AND PROFILE	STA 460+00 TO STA 515+00
T1358-A		BNSF WYE - NB CONNECTION	AVENUE 24	PLAN AND PROFILE	STA 515+00 TO STA 566+78.51
T1370-A		BNSF WYE - SB CONNECTION	AVENUE 24	PLAN AND PROFILE	STA 500+00 TO STA 525+00
T1371-A		BNSF WYE - SB CONNECTION	AVENUE 24	PLAN AND PROFILE	STA 525+00 TO STA 580+00
T1372-A		BNSF WYE - SB CONNECTION			

## ABBREVIATIONS

### ALIGNMENT

<u>HORIZONTAL</u>	
BC	BEGINNING OF CURVE
CS	CURVE TO SPIRAL
EC	END OF CURVE
PC	POINT OF CURVE
PCC	POINT OF COMPOUND CIRCULAR CURVES
PCS	POINT OF CURVE TO SPIRAL
PF	POINT OF FROG
PI	POINT OF INTERSECTION OF TWO TANGENTS
PITO	POINT OF INTERSECTION OF TURNOUT
POC	POINT ON CURVE
POS	POINT ON SPIRAL
POT	POINT ON TANGENT
PRC	POINT OF REVERSE CURVES
PS	POINT OF SWITCH
PSC	POINT OF SPIRAL TO CURVE
PT	POINT OF TANGENCY
R	RADIUS OF CURVATURE IN FEET
SC	SPIRAL TO CURVE
SPO	POINT OF ORIGIN OF COMPOUND SPIRAL
SS	POINT OF SPIRAL TO SPIRAL
ST	SPIRAL TO TANGENT
TS	TANGENT TO SPIRAL
V	DESIGN VELOCITY IN MILES PER HOUR

<u>VERTICAL</u>	
PVC	POINT OF VERTICAL CURVE (BEGINNING OF CURVE)
PVI	POINT OF VERTICAL INTERSECTION (OF TANGENTS)
PVT	POINT OF VERTICAL TANGENCY (ENDING OF CURVE)
VC	VERTICAL CURVE

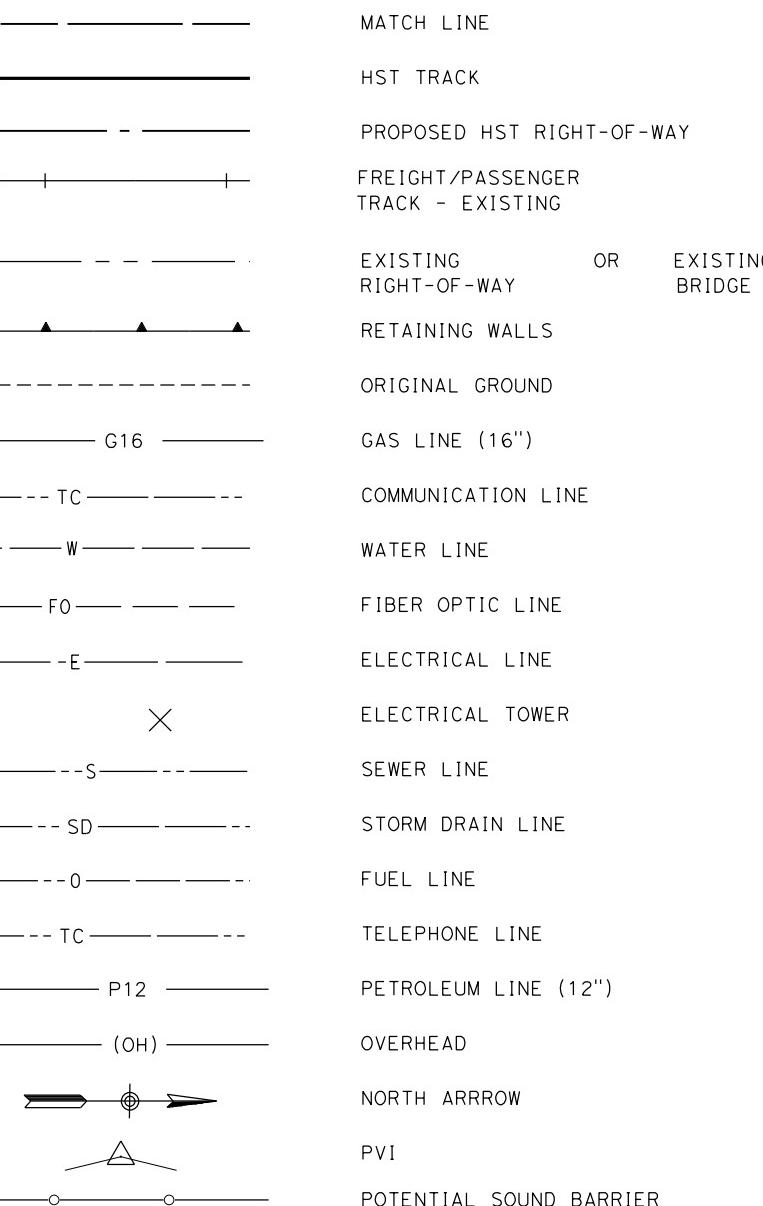
### MISCELLANEOUS

BEG	BEGIN
BLVD	BOULEVARD
CL	CENTER LINE
CLR	CENTERLINE, CLASS
COL	COLUMN
DWG	DRAWING
EQ	EQUATION
EXIST(E)	EXISTING
IN	INCH
LT	LEFT
MAX	MAXIMUM
MIN	MINIMUM
N	NORTH
NB	NORTH BOUND
NTS	NOT TO SCALE
OG	ORIGINAL GROUND
O/H OH	OVER HEAD
PG&E	PACIFIC GAS & ELECTRIC
PGL	PROFILE GRADE LINE
RR	RAILROAD
RD	ROAD
R/W ROW	RIGHT OF WAY
RT	RIGHT
SS	SANITARY SEWER
SHT	SHEET
ST	STREET
STD	STANDARD
SD	STORM DRAIN
STRUCT	STRUCTURE
T	TELEPHONE
	(OH) OVERHEAD LINE
	(UG) UNDERGROUND LINE
TOR	TOP OF RAIL
TK	TRACK
TO	TURNOUT
TYP	TYPICAL
TBD	TO BE DETERMINED
TF	TELECOMMUNICATIONS FIBER OPTIC
V VERT	VERTICAL
W	WATER, WEST

## SYMBOLS

### NOTES:

- EXISTING ROADS TO BE GRADE SEPARATED OVER THE HIGH SPEED TRAIN (HST) RIGHT OF WAY ARE INDICATED IN THE ALIGNMENT PROFILE. ALL OTHER ROADS CROSSING THE PROPOSED HST TRACKS WILL BE CLOSED OR RELOCATED. SEE ROADWAY PLANS FOR ADDITIONAL INFORMATION.
- SEE STRUCTURE PLANS FOR LIMITS AND DETAILS OF VIADUCTS, STREAM CROSSINGS, RETAINING WALLS AND OTHER HST STRUCTURES.
- SEE ROADWAY PLANS FOR ROADWAY RELOCATIONS, GRADE SEPARATIONS, AND MODIFICATIONS TO STATE HIGHWAY FACILITIES.
- UTILITIES INDICATED ON THE PLANS ARE FOR REFERENCE ONLY. SEE "UTILITIES CONFLICT MEMO" FOR ADDITIONAL INFORMATION AND PROPOSED RELOCATION CONCEPTS.
- ROAD/LOCAL ACCESS DELINEATED FOR FURTHER EVALUATION. ADDITIONAL STUDIES WILL BE CONDUCTED DURING PRELIMINARY ENGINEERING PHASE (30% DESIGN) TO SUBSTANTIATE ITS INCLUSION OR EXCLUSION FROM THE PROPOSED IMPROVEMENTS.
- STANDALONE RADIO SITES WILL BE PROVIDED IN BETWEEN TRACTION POWER FACILITIES (SUBSTATIONS, SWITCHING STATIONS, AND PARALLELING STATIONS). SPACING OF THESE SITES WILL VARY BETWEEN 1-1/2 AND 3 MILES. ACCESS TO THESE SITES WILL BE PROVIDED AT THE NEAREST PUBLIC ROAD THAT CROSSES THE HIGH SPEED TRAIN ALIGNMENT.



"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

DESIGNED BY B. CHAN	RECORD SET 15% DESIGN SUBMITTAL	NOT FOR CONSTRUCTION	GENERAL
DRAWN BY S. LEONG			
CHECKED BY A. BOONE			
IN CHARGE J. VALSECCHI			
DATE 07/27/2011			
REV DATE BY CHK APP	DESCRIPTION		

**AECOM**  
Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811  
**CH2MHILL**

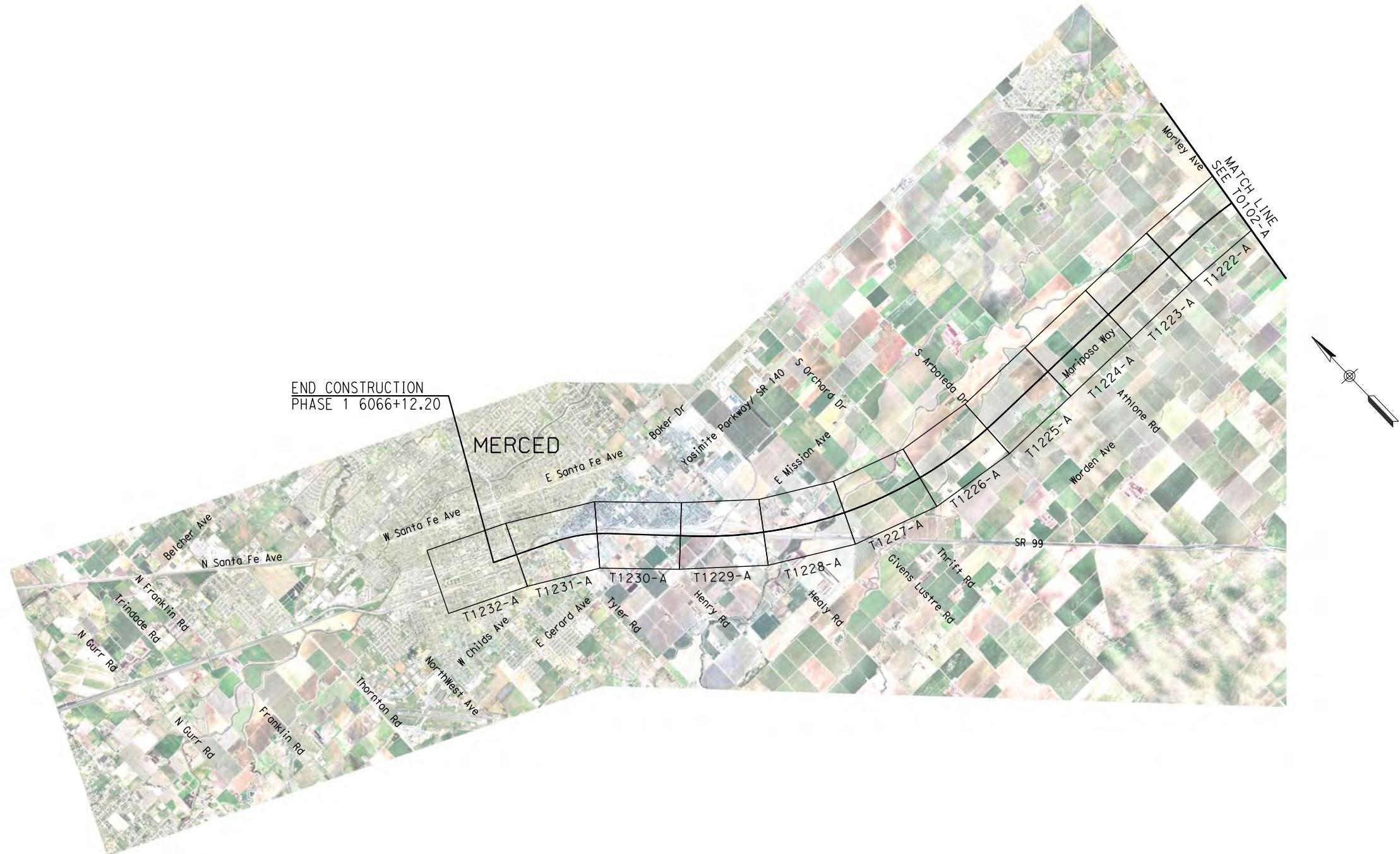


## CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO

GENERAL

ABBREVIATIONS, SYMBOLS AND NOTES

CONTRACT NO.  
HSR06-007  
DRAWING NO.  
T0100-A  
SCALE  
NO SCALE  
SHEET NO.  
### OF ###



"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION	
	07/27/2011					

DESIGNED BY  
A. SHIELDS  
DRAWN BY  
H. SULLIVAN  
CHECKED BY  
A. BOONE  
IN CHARGE  
A. BOONE  
DATE  
07/27/2011

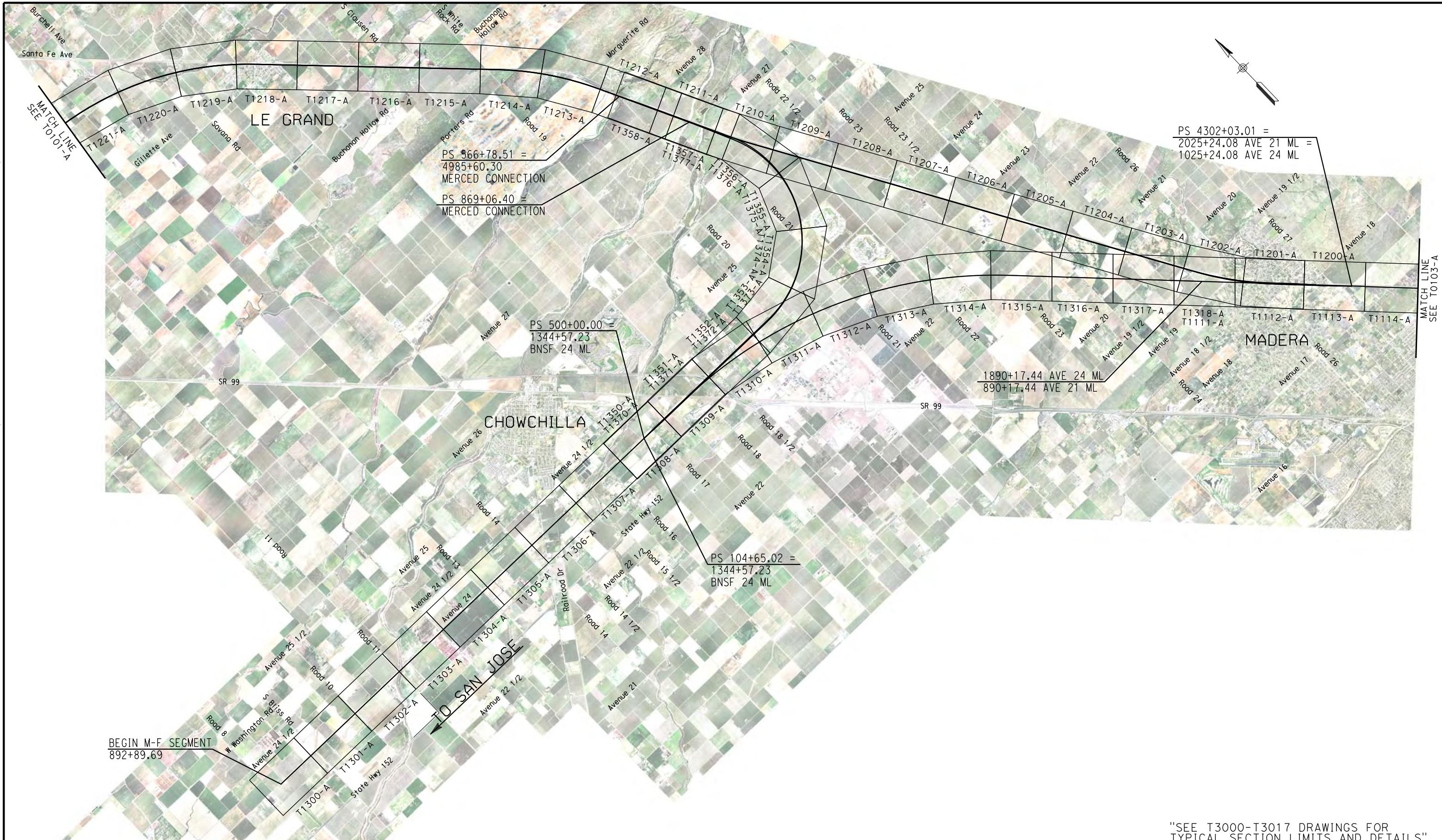
RECORD SET  
15% DESIGN  
SUBMITTAL  
**NOT FOR  
CONSTRUCTION**

**AECOM**  
Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811  
**CH2MHILL**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT**  
**MERCED TO FRESNO**  
BNSF ALIGNMENT  
AVENUE 24  
KEY MAP  
SHEET 1 OF 3

CONTRACT NO.  
HSR06-007  
DRAWING NO.  
T0101-A  
SCALE  
NO SCALE  
SHEET NO.  
### OF ###



DESIGNED BY A. SHIELDS	RECORD SET 15% DESIGN SUBMITTAL	AECOM Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811	CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO	CONTRACT NO. HSR06-007
DRAWN BY H. SULLIVAN	NOT FOR CONSTRUCTION	CH2MHILL	BNSF ALIGNMENT AVENUE 24	DRAWING NO. T0102-A
CHECKED BY A. BOONE			KEY MAP	SCALE NO SCALE
IN CHARGE A. BOONE			SHEET NO. ### OF ###	
DATE 07/27/2011	DESCRIPTION		SHEET 2 OF 3	
REV	DATE	BY	CHK	APP



"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. SHIELDS  
DRAWN BY  
F. DeMARCO  
CHECKED BY  
A. BOONE  
IN CHARGE  
A. BOONE  
DATE  
07/27/2011

RECORD SET  
15% DESIGN  
SUBMITTAL  
**NOT FOR  
CONSTRUCTION**

**AECOM**  
Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811  
**CH2MHILL**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
MERCED TO FRESNO**  
BNSF ALIGNMENT  
AVENUE 24  
KEY MAP  
SHEET 3 OF 3

CONTRACT NO.  
HSR06-007  
DRAWING NO.  
T0103-A  
SCALE  
NO SCALE  
SHEET NO.  
### OF ###

## TRACK ALIGNMENT CURVE DATA SUMMARY TABLE-BNSF MAIN LINE AVE 24 SB

CURVE	DESIGN SPEED (V) (MPH)	RADIUS (R) (FT)	ACTUAL SUPERELEVATION (Ea) (IN)	UNBALANCED SUPERELEVATION (Eu) (IN)	SPIRAL LENGTH (Ls) (FT)	BEGIN STATION	END STATION	BEGIN DRAWING
BNSF225	250	40500	4.00	2.17	1300	1389+35.83	1723+31.35	T1309-A

## TRACK ALIGNMENT CURVE DATA SUMMARY TABLE-BNSF MAIN LINE SB

CURVE	DESIGN SPEED (V) (MPH)	RADIUS (R) (FT)	ACTUAL SUPERELEVATION (Ea) (IN)	UNBALANCED SUPERELEVATION (Eu) (IN)	SPIRAL LENGTH (Ls) (FT)	BEGIN STATION	END STATION	BEGIN DRAWING
BNSF202	250	28000	6.00	2.93	2000	1106+38.05	1169+50.77	T1115-A
BNSF203	250	28000.0	6.00	2.93	2000	1288+03.95	1432+77.00	T1118-A
BNSF204	250	28016.5	6.00	2.93	2000	1452+42.23	1566+35.87	T1121-A
BNSF205	250	28016.5	6.00	2.93	2000	1599+58.86	1734+68.17	T1124-A
BNSF206	250	42995.5	3.25	2.56	1199.87	1708+55.57	1748+44.15	T1127-A
BNSF207	250	43000	3.25	2.56	1200	1852+76.45	1927+63.38	T1130-A

## TRACK ALIGNMENT CURVE DATA SUMMARY TABLE-BNSF MERCED CONNECTION SB

CURVE	DESIGN SPEED (V) (MPH)	RADIUS (R) (FT)	ACTUAL SUPERELEVATION (Ea) (IN)	UNBALANCED SUPERELEVATION (Eu) (IN)	SPIRAL LENGTH (Ls) (FT)	BEGIN STATION	END STATION	BEGIN DRAWING
BNSF109	150	32000			220	4302+03.01	4313+91.12	T1200-A
BNSF110	150	24000	1.25	2.50	220	4313+91.12	4323+70.19	T1200-A
BNSF111	250	28000	6.00	2.93	2000	4363+79.98	4453+67.52	T1202-A
BNSF112	250	43016.5	3.00	2.81	1100	4856+00.90	4897+66.79	T1210-A
BNSF113	250	28000	6.00	2.93	2000	4996+88.68	5109+38.05	T1212-A
BNSF114	250	28000	6.00	2.93	2000	5308+84.67	5547+08.45	T1218-A
BNSF115	250	28016.5	6.00	2.93	2000	5701+78.02	5942+55.78	T1225-A
BNSF116	150	10000	6.00	2.64	1000	5982+81.29	6029+03.10	T1230-A

## TRACK ALIGNMENT CURVE DATA SUMMARY TABLE - BNSF WYE - SB CONNECTION AVE 24

CURVE	DESIGN SPEED (V) (MPH)	RADIUS (R) (FT)	ACTUAL SUPERELEVATION (Ea) (IN)	UNBALANCED SUPERELEVATION (Eu) (IN)	SPIRAL LENGTH (Ls) (FT)	BEGIN STATION	END STATION	BEGIN DRAWING
BNSF128	150	32000			220	500+00.00	510+31.98	T1370-A
BNSF129	150	24024.54	1.25	2.50	220	510+31.98	518+63.11	T1370-A
BNSF130	145	9800	6.00	2.58	1200	648+85.18	857+24.00	T1373-A
BNSF131	150	32000			220	886+55.05	896+06.40	T1377-A

## TRACK ALIGNMENT CURVE DATA SUMMARY TABLE-BNSF MAIN LINE AVE 24 NB

CURVE	DESIGN SPEED (V) (MPH)	RADIUS (R) (FT)	ACTUAL SUPERELEVATION (Ea) (IN)	UNBALANCED SUPERELEVATION (Eu) (IN)	SPIRAL LENGTH (Ls) (FT)	BEGIN STATION	END STATION	BEGIN DRAWING
BNSF101	250	28016.50	6.00	2.93	2000	646+46.22	890+30.92	T-1107-A

## TRACK ALIGNMENT CURVE DATA SUMMARY TABLE-BNSF MAIN LINE NB

CURVE	DESIGN SPEED (V) (MPH)	RADIUS (R) (FT)	ACTUAL SUPERELEVATION (Ea) (IN)	UNBALANCED SUPERELEVATION (Eu) (IN)	SPIRAL LENGTH (Ls) (FT)	BEGIN STATION	END STATION	BEGIN DRAWING
BNSF102	250	28016.5	6.00	2.93	2000	1106+50.94	1169+66.78	T1115-A
BNSF103	250	28016.5	6.00	2.93	2000	1288+19.38	1433+00.37	T1118-A
BNSF104	250	28000	6.00	2.93	2000	1452+65.60	1566+53.12	T1121-A
BNSF105	250	28000	6.00	2.93	2000	1593+78.25	1734+18.05	T1121-A
BNSF106	250	43012	3.25	2.56	1200	1708+55.57	1748+44.15	T1127-A
BNSF107	250	43016.5	3.25	2.56	1200	1852+76.45	1927+63.38	T1130-A

## TRACK ALIGNMENT CURVE DATA SUMMARY TABLE-BNSF MERCED CONNECTION SB

CURVE	DESIGN SPEED (V) (MPH)	RADIUS (R) (FT)	ACTUAL SUPERELEVATION (Ea) (IN)	UNBALANCED SUPERELEVATION (Eu) (IN)	SPIRAL LENGTH (Ls) (FT)	BEGIN STATION	END STATION	BEGIN DRAWING
BNSF109	150	32000			220	4302+03.01	4313+11.12	T1200-A
BNSF110	150	24000	1.25	2.50	220	4313+11.12	4323+70.19	T1200-A
BNSF111	250	28000	6.00	2.93	2000	3366+51.75	3456+39.30	T1202-A
BNSF112	250	43016.5	3.00	2.81	1100	3855+88.42	3897+53.13	T1210-A
BNSF113	250	28000	6.00	2.93	2000	3996+75.02	4109+29.85	T1212-A
BNSF114	250	28000	6.00	2.93	2000	4308+76.46	4547+13.11	T1218-A
BNSF115	250	28016.5	6.00	2.93	2000	4701+82.68	4942+47.44	T1225-A
BNSF116	150	10000	6.00	2.64	1000	4971+57.33	5039+96.02	T1225-A

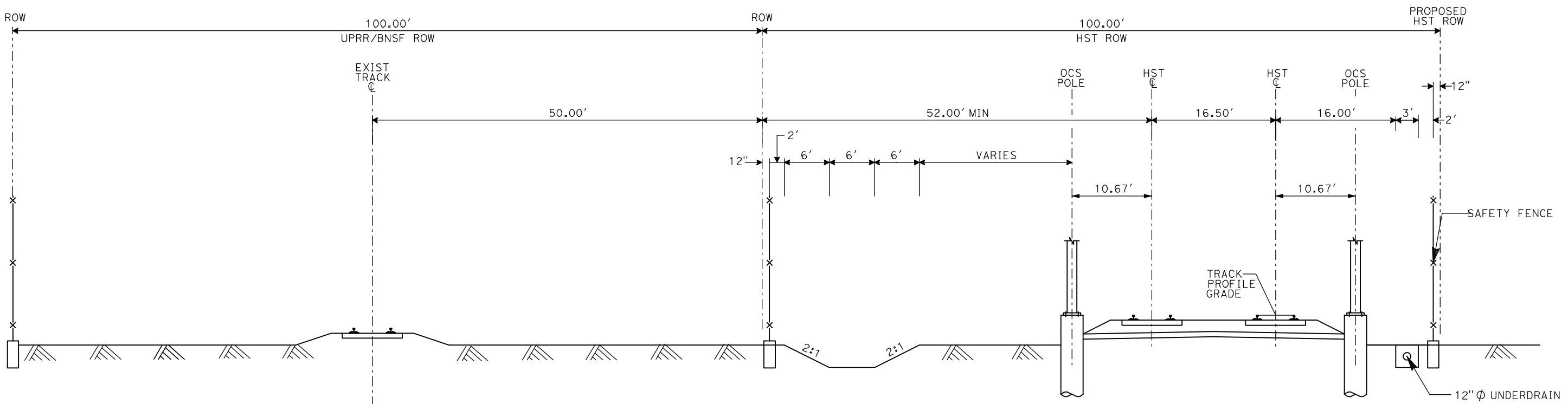
## TRACK ALIGNMENT CURVE DATA SUMMARY TABLE-BNSF MERCED CONNECTION NB

CURVE	DESIGN SPEED (V) (MPH)	RADIUS (R) (FT)	ACTUAL SUPERELEVATION (Ea) (IN)	UNBALANCED SUPERELEVATION (Eu) (IN)	SPIRAL LENGTH (Ls) (FT)	BEGIN STATION	END STATION	BEGIN DRAWING
BNSF109	150	32000			220	4302+03.01	4313+11.12	T1200-A
BNSF110	150	23992.86	1.25	2.50	220	4313+11.12	4323+70.19	T1200-A
BNSF211	250	28000	6.00	2.93	2000	3366+51.75	3456+39.30	T1202-A
BNSF212	250	43000	3.00	2.81	1100	3855+88.42	3897+53.13	T1210-A
BNSF213	250	28016.5	6.00	2.93	2000	3996+75.02	4109+29.85	T1212-A
BNSF214	250	28016.5	6.00	2.93	2000	4308+76.46	4547+13.11	T1218-A
BNSF215	250	28000	6.00	2.93	2000	4701+82.68	4942+47.44	

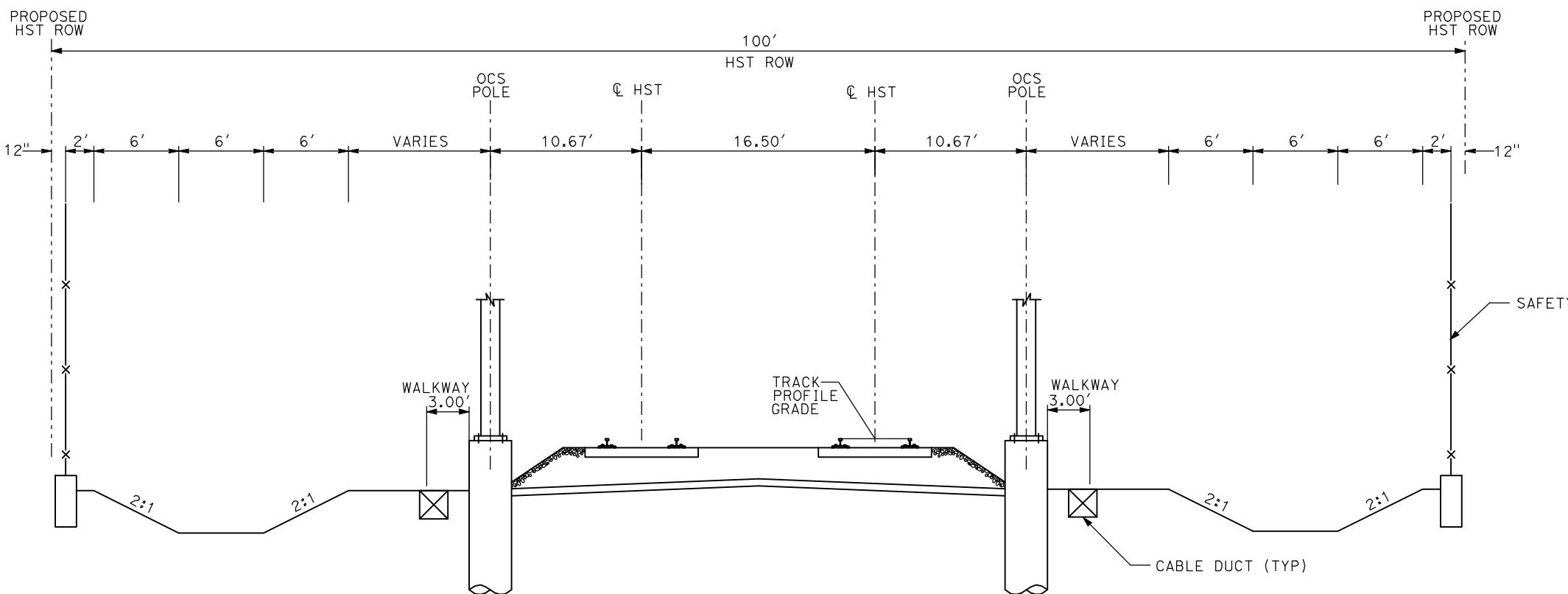
ALTERNATIVE HYBRID AVENUE 24			
ALIGNMENT	BEGIN STATION	END STATION	SECTION
HYBRID 24	892+90	926+80	AG2
	926+80	1020+00	WYE1
	1020+00	1185+00	AG2
	1185+00	1230+00	WYE1
	1230+00	1360+00	AG2
	1360+00	1375+00	RF2
	1375+00	1435+00	EL1
	1435+00	1443+00	RF2
	1443+00	2681+00	AG2
	2681+00	2695+00	RF2
	2695+00	2731+50	EL1
	2731+50	2740+55	EL5
HYBRID-FR			
	1713+98	1737+00	EL6
	1737+00	1764+78	EL7
	1764+78	1767+00	EL8
	1767+00	1788+84	RF3
	1788+84	1843+35	AG6
	1843+35	1893+95	RF3
	1893+95	1958+00	AG6
	1958+00	2072+36	AG7
UPRR/SR 99 WCDO/HYBRID MC SB			
	5061+66	5015+00	WYE1
	5015+00	5235+00	AG4
	5235+00	5285+00	WYE 1
	5288+00	5556+91	AG2
UPRR/SR 99 WCDO/HYBRID MC NB			
	5058+80	5110+00	WYE1
	5110+00	5121+00	EL2
	5121+00	5127+00	RF2
	5127+00	5235+00	AG4
	5235+00	5285+00	WYE1
	5285+00	5597+00	AG2
UPRR/SR 99-21MC			
	5556+98	5910+00	AG1
	5910+00	5916+50	TR2
	5916+50	5917+60	CC1
	5917+60	5925+00	TR2
	5925+00	5977+70	AG1
	5977+70	5989+20	TR2
	5989+20	5990+20	CC1
	5990+20	6003+00	TR2
	6003+00	6022+00	AG1
	6022+00	6040+60	TR2
	6040+60	6042+90	CC1
	6042+90	6052+50	TR1
	6052+50	6066+20	AG5
UPRR/SR 99 WCDO/HYBRID WC NB			
	148+82	205+00	WYE1
	205+00	211+00	EL2
	211+00	219+00	RF2
	219+00	313+50	AG4
	313+50	320+00	RF2
	320+00	330+00	EL2
	330+00	382+25	WYE1
UPRR/SR 99 WCDO/HYBRID WC SB			
	524+67	570+00	WYE1
	570+00	695+00	AG4
	695+00	738+88	WYE1

ALTERNATIVE HYBRID AVENUE 21			
ALIGNMENT	BEGIN STATION	END STATION	SECTION
HYBRID 21	892+90	330+00	AG2
	330+00	430+00	WYE1
	430+00	565+00	AG2
	565+00	580+00	RF2
	580+00	630+00	EL1
	630+00	640+00	RF2
	640+00	680+00	WYE1
	680+00	868+87-	AG2
	868+87-	1865+00	AG2
	1865+00	2681+00	AG2
	2681+00	2695+00	RF2
	2695+00	2731+50	EL1
	2731+50	2740+55	EL5
HYBRID-FR			
	1713+98	1737+00	EL6
	1737+00	1764+78	EL7
	1764+78	1767+00	EL8
	1767+00	1788+84	RF3
	1788+84	1843+35	AG6
	1843+35	1893+95	RF3
	1893+95	1958+00	AG6
	1958+00	2072+36	AG7
HYBRID MC SB - 21			
	200+20	250+00	WYE1
	250+00	290+00	EL2
	290+00	377+99	EL1
HYBRID MC NB - 21			
	500+00	550+00	WYE1
	550+00	590+00	EL2
	590+00	677+40	EL1
UPRR/SR 99-21MC			
	4907+27	4975+00	EL1
	4975+00	5045+00	WYE1
	5045+00	5385+00	EL1
	5385+00	5425+00	RF2
	5425+00	5910+00	AG1
	5910+00	5915+50	TR2
	5915+50	5916+60	CC1
	5916+60	5924+00	TR2
	5924+00	5977+70	AG1
	5977+70	5989+30	TR2
	5989+30	5990+40	CC1
	5990+40	6003+00	TR2
	6003+00	6022+00	AG1
	6022+00	6040+60	TR2
	6040+60	6042+90	CC1
	6042+90	6052+50	TR1
	6052+50	6066+20	AG5
UPRR/SR 99-21WC NB			
	505+00	610+00	WYE1
	610+00	619+50	EL2
	619+50	628+35	RF1
	628+35	714+80	AG4
	714+80	724+20	RF1
	724+20	780+00	EL2
	780+00	846+94	WYE2
UPRR/SR 99-21WC SB			
	105+00	180+00	WYE1
	180+00	298+80	AG4
	298+80	313+21	RF1
	313+21	340+00	EL2
	340+00	397+52	WYE2
UPRR/SR 99-21MC			
	4586+50	4670+00	WYE1
	4670+00	4796+00	AG1
	4796+00	4810+00	RF2
	4810+00	4975+00	EL1
	4975+00	5045+00	WYE2
	5045+00	5385+00	EL1
	5385+00	5425+00	RF2
	5425+00	5910+00	AG1
	5910+00	5915+50	TR2
	5915+50	5916+60	CC1
	5916+60	5924+00	TR2
	5924+00	5977+70	AG1
	5977+70	5989+30	TR2
	5989+30	5990+40	CC1
	5990+40	6003+00	TR2
	6003+00	6022+00	AG1
	6022+00	6040+60	TR2
	6040+60	6042+90	CC1
	6042+90	6052+50	TR1
	6052+50	6066+20	AG5

ALTERNATIVE BNSF AVENUE 21			
ALIGNMENT	BEGIN STATION	END STATION	SECTION
BNSF-21ML	267+41	562+00	AG2
	562+00	582+61	RF2
	582+61	634+76	EL1
	634+76	665+80	RF2
	665+80	859+40	AG2
	859+40	881+05	RF2
	881+05	925+00	EL1
	925+00	985+00	WYE1
	985+00	1042+75	EL1
	1042+75	1060+00	RF2
	1060+00	1305+00	AG1
	1305+00	1685+00	AG2
	1685+00	1696+00	RF2
	1696+00	1737+00	EL6
	1737+00	1764+78	EL7
	1764+78	1767+00	EL8
	1767+00	1788+84	RF3
	1788+84	1843+35	AG6
	1843+35	1893+95	RF3
	1893+95	1958+00	AG6
	1958+00	2072+36	AG7
BNSF-FR			
	1713+98	1737+00	EL6
	1737+00	1764+78	EL7
	1764+78	1767+00	EL8
	1767+00	1788+84	RF3
	1788+84	1843+35	AG6
	1843+35	1893+95	RF3
	1893+95	1958+00	AG6
	1958+00	20	



AG1 - DOUBLE TRACK AT GRADE ADJACENT TO UPRR/BNSF



AG2 - DOUBLE TRACK AT GRADE

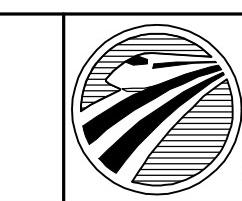
- NOTES:
1. TRACK, OCS POLES AND FOUNDATIONS, CABLE DUCTS AND DRAINAGE ARE SCHEMATIC AND DO NOT REPRESENT DESIGN.
  2. RIGHT-OF-WAY REQUIRED FOR THE HIGH-SPEED RAIL GUIDEWAY WILL DEPEND UPON CONDITIONS ALONG THE ALIGNMENT, INCLUDING TERRAIN, WHERE CUT/FILL SLOPES, RETAINING STRUCTURES, AND ACCESS ARE REQUIRED.
  3. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS. FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE ALIGNMENT PLAN AND PROFILE SHEETS.

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. SHIELDS  
DRAWN BY  
C. VALADAO  
CHECKED BY  
A. BOONE  
IN CHARGE  
A. BOONE  
DATE  
07/20/2011

RECORD SET  
15% DESIGN  
SUBMITTAL  
**NOT FOR  
CONSTRUCTION**

**AECOM**  
Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811  
**CH2MHILL**

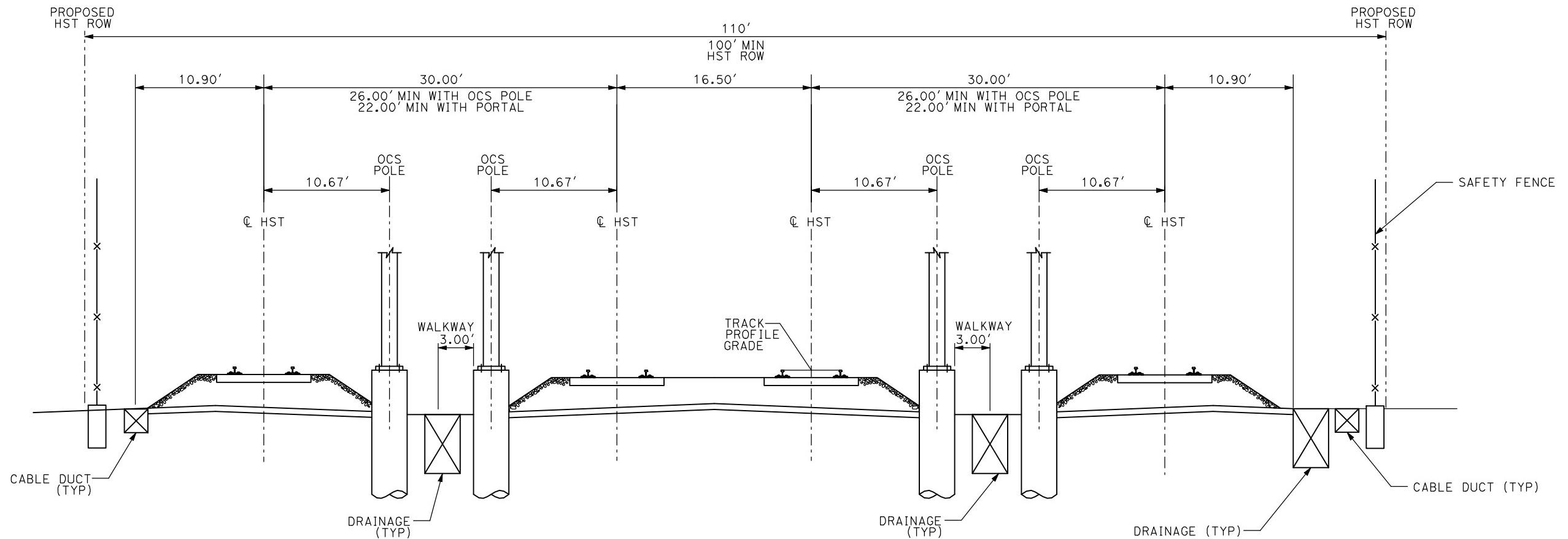


**CALIFORNIA**  
HIGH-SPEED RAIL AUTHORITY

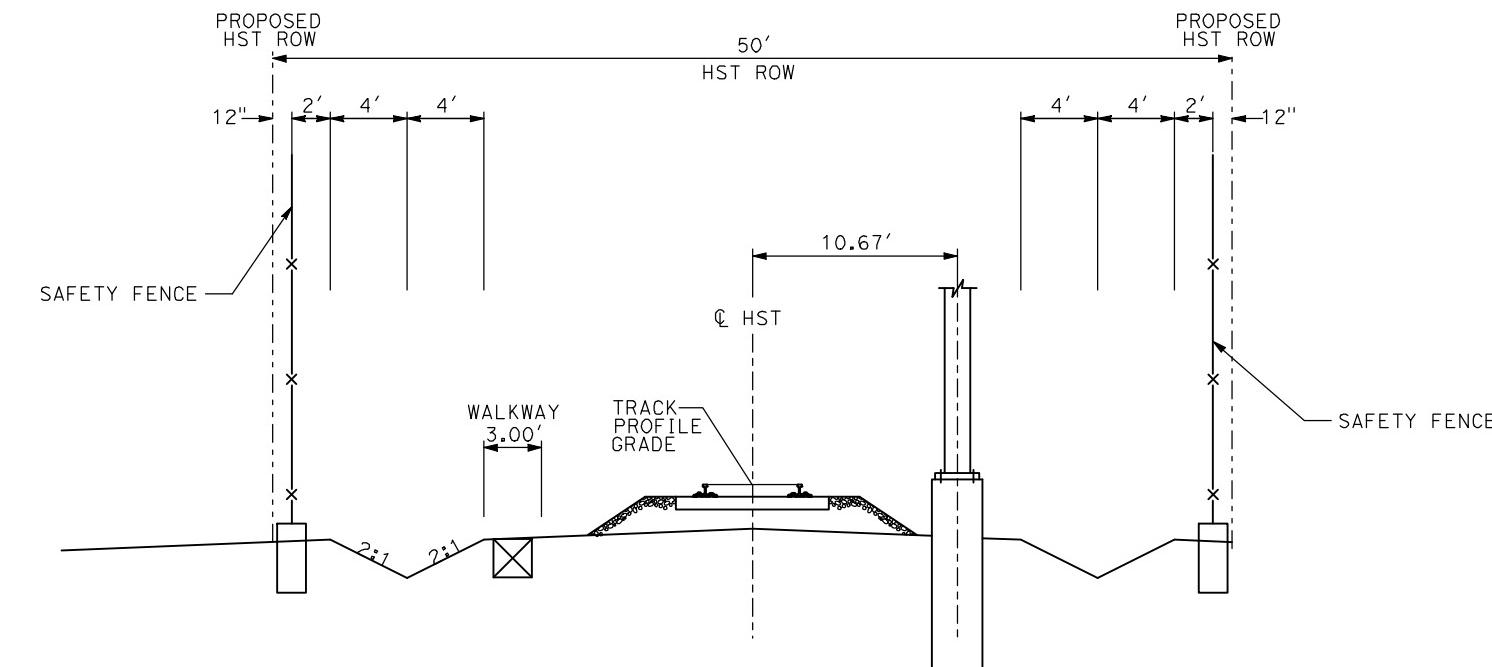
**CALIFORNIA HIGH-SPEED TRAIN PROJECT**  
**MERCED TO FRESNO**

TYPICAL SECTIONS  
SHEET 1 OF 17

CONTRACT NO.  
HSR06-007  
DRAWING NO.  
T3001-A  
SCALE  
NO SCALE  
SHEET NO.  
OF ###



AG3 - 4 TRACK AT GRADE



AG4 - SINGLE TRACK AT GRADE

- NOTES:
1. TRACK, OCS POLES AND FOUNDATIONS, CABLE DUCTS AND DRAINAGE ARE SCHEMATIC AND DO NOT REPRESENT DESIGN.
  2. RIGHT-OF-WAY REQUIRED FOR THE HIGH-SPEED RAIL GUIDEWAY WILL DEPEND UPON CONDITIONS ALONG THE ALIGNMENT, INCLUDING TERRAIN, WHERE CUT/FILL SLOPES, RETAINING STRUCTURES, AND ACCESS ARE REQUIRED.
  3. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS. FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE ALIGNMENT PLAN AND PROFILE SHEETS.

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. SHIELDS  
DRAWN BY  
C. VALADAO  
CHECKED BY  
A. BOONE  
IN CHARGE  
A. BOONE  
DATE  
07/20/2011

RECORD SET  
15% DESIGN  
SUBMITTAL  
**NOT FOR  
CONSTRUCTION**

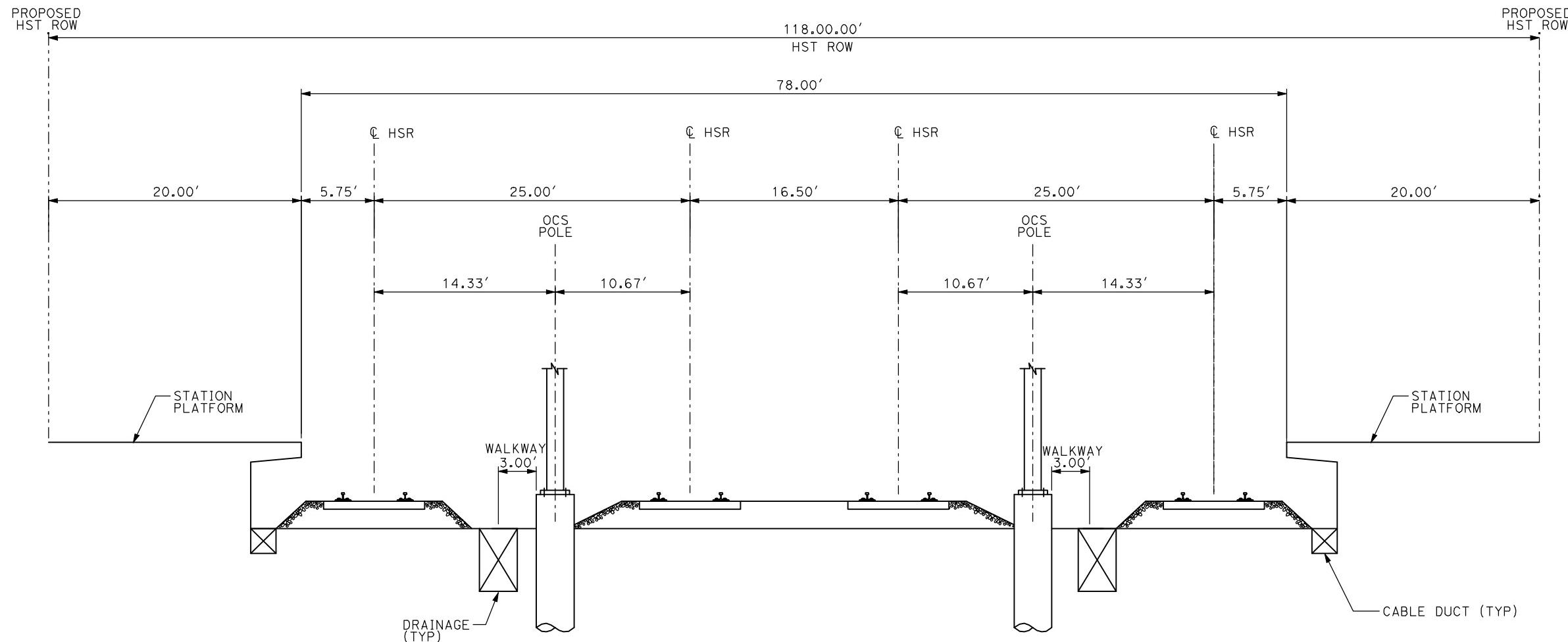
**AECOM**  
Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811  
**CH2MHILL**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
MERCED TO FRESNO**

TYPICAL SECTIONS  
SHEET 2 OF 17

CONTRACT NO.  
HSR06-007  
DRAWING NO.  
T3002-A  
SCALE  
NO SCALE  
SHEET NO.  
OF ####



AG5 - 4 TRACK AT GRADE MERCED STATION

- NOTES:
1. TRACK, OCS POLES AND FOUNDATIONS, CABLE DUCTS AND DRAINAGE ARE SCHEMATIC AND DO NOT REPRESENT DESIGN.
  2. RIGHT-OF-WAY REQUIRED FOR THE HIGH-SPEED RAIL GUIDEWAY WILL DEPEND UPON CONDITIONS ALONG THE ALIGNMENT, INCLUDING TERRAIN, WHERE CUT/FILL SLOPES, RETAINING STRUCTURES, AND ACCESS ARE REQUIRED.
  3. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS. FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE ALIGNMENT PLAN AND PROFILE SHEETS.

					DESIGNED BY A. SHIELDS
					DRAWN BY C. VALADAO
					CHECKED BY A. BOONE
					IN CHARGE A. BOONE
					DATE 07/20/2011
REV	DATE	BY	CHK	APP	DESCRIPTION

RECORD SET  
15% DESIGN  
SUBMITTAL  
**NOT FOR  
CONSTRUCTION**

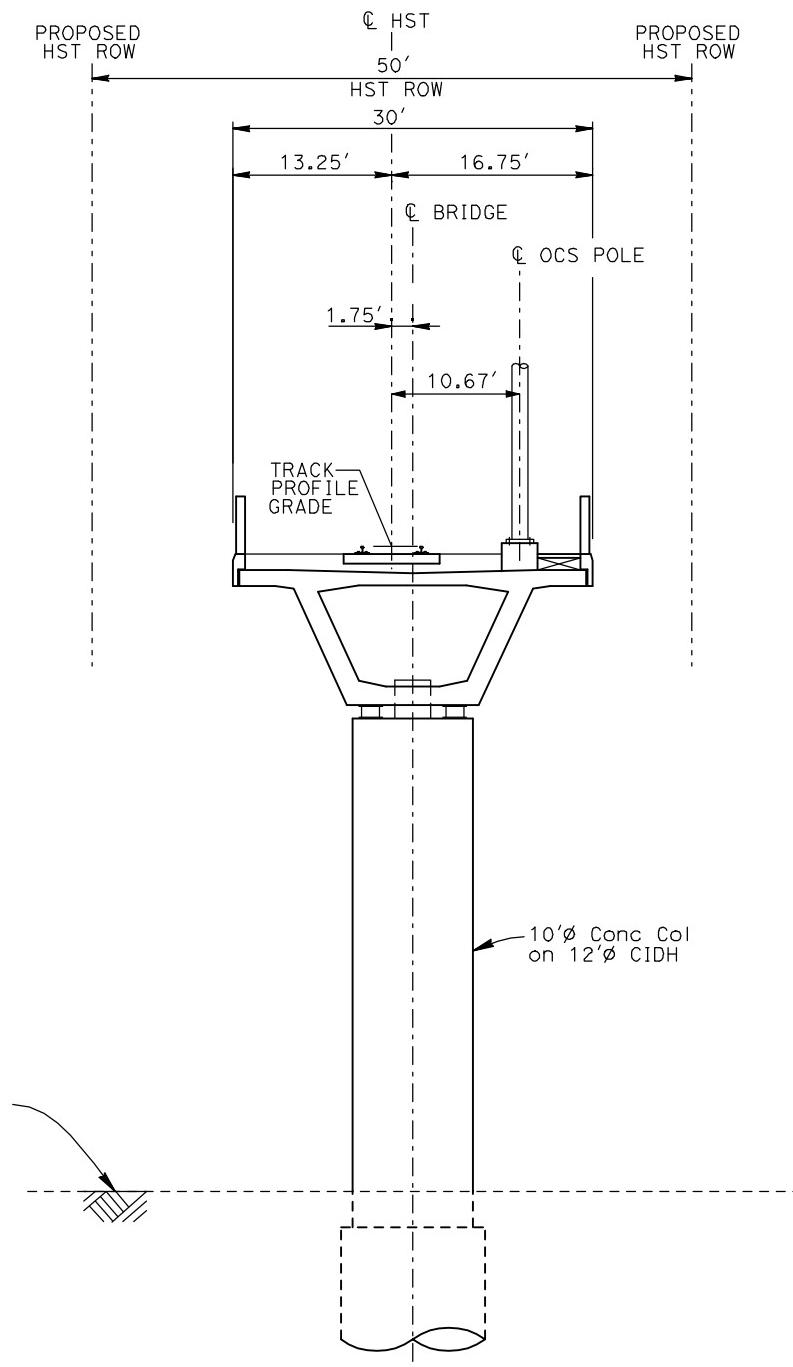
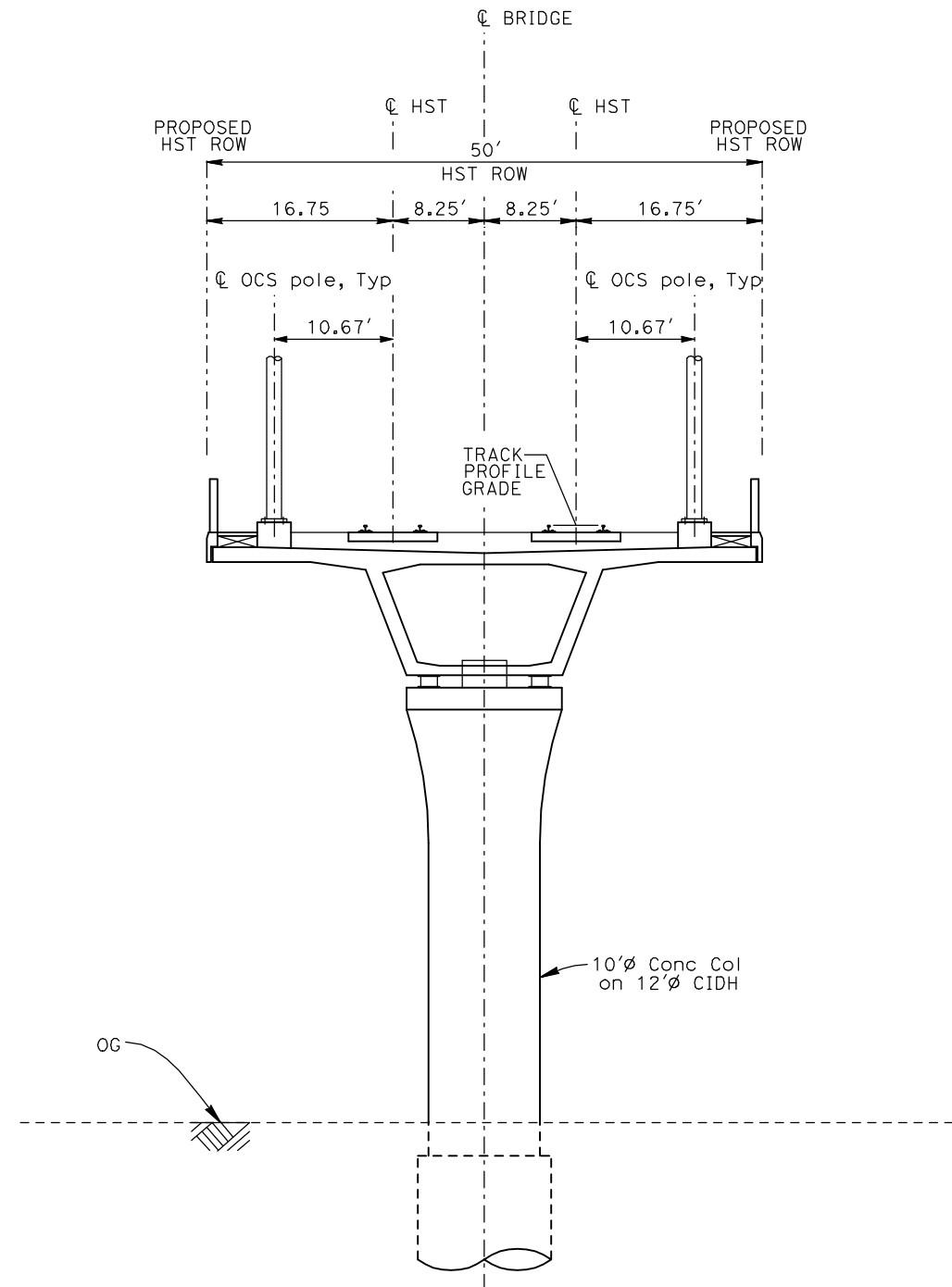
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Sacramento, CA 95811  
**CH2MHILL**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
MERCED TO FRESNO**

TYPICAL SECTIONS  
SHEET 3 OF 17

CONTRACT NO.  
HSR-007  
DRAWING NO.  
T3003-A  
SCALE  
NO SCALE  
SHEET NO.  
OF ####



- NOTES:
1. TRACK, OCS POLES AND FOUNDATIONS, CABLE DUCTS AND DRAINAGE ARE SCHEMATIC AND DO NOT REPRESENT DESIGN.
  2. BACK-TO-BACK CANTILEVERS ON A SINGLE POLE MAY BE PERMITTED AT PASSENGER STATIONS.
  3. RIGHT-OF-WAY REQUIRED FOR THE HIGH-SPEED RAIL GUIDEWAY WILL DEPEND UPON CONDITIONS ALONG THE ALIGNMENT, INCLUDING TERRAIN, WHERE CUT/FILL SLOPES, RETAINING STRUCTURES, AND ACCESS ARE REQUIRED.
  4. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS. FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE ALIGNMENT PLAN AND PROFILE SHEETS.

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. SHIELDS  
DRAWN BY  
C. VALADAO  
CHECKED BY  
A. BOONE  
IN CHARGE  
A. BOONE  
DATE  
07/20/2011

RECORD SET  
15% DESIGN  
SUBMITTAL  
**NOT FOR  
CONSTRUCTION**

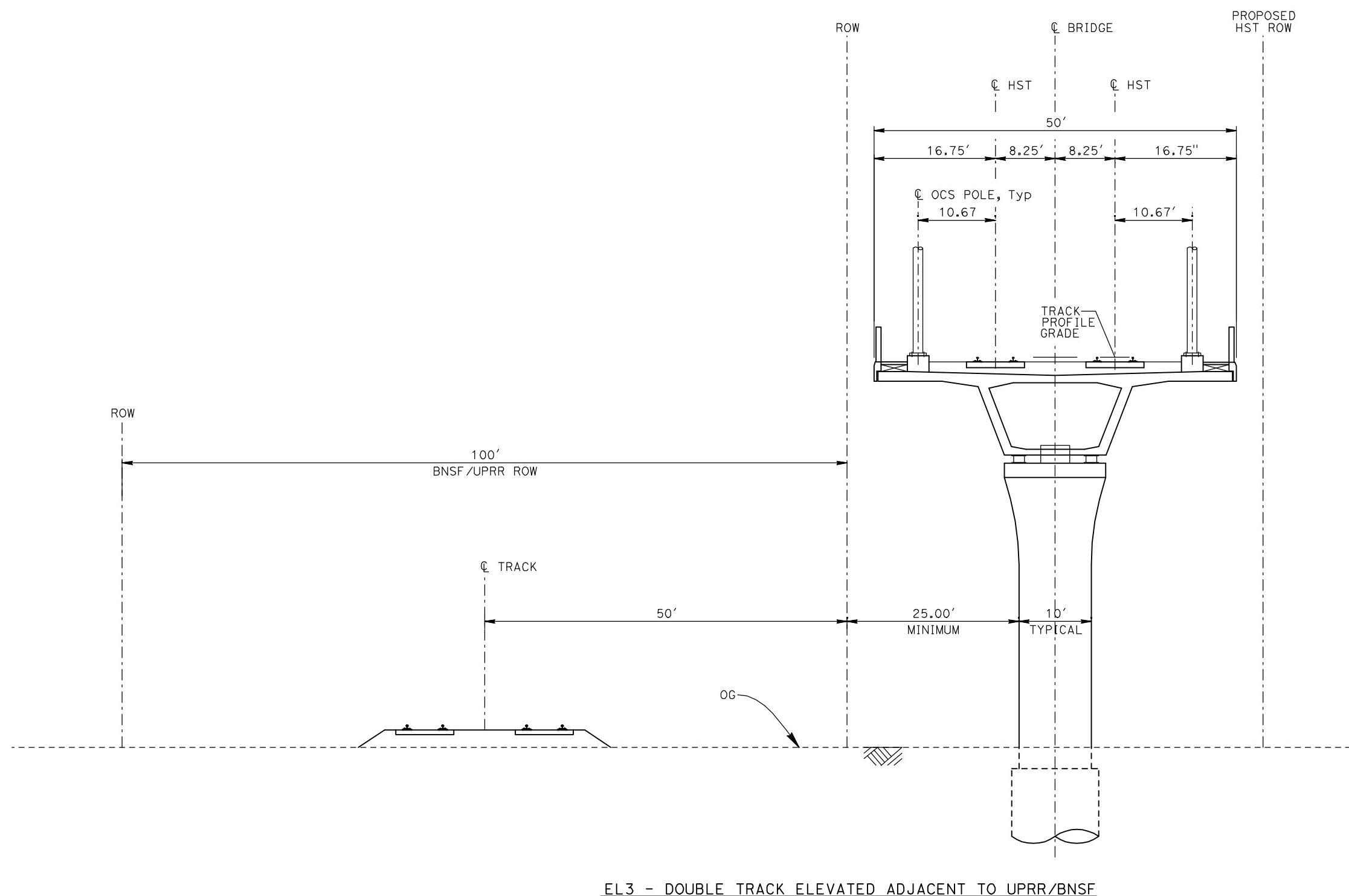
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Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811  
**CH2MHILL**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
MERCED TO FRESNO**

TYPICAL SECTIONS  
SHEET 4 OF 17

CONTRACT NO.  
HSR06-007  
DRAWING NO.  
T3004-A  
SCALE  
NO SCALE  
SHEET NO.  
OF ###



- NOTES:
1. TRACK, OCS POLES AND FOUNDATIONS, CABLE DUCTS AND DRAINAGE ARE SCHEMATIC AND DO NOT REPRESENT DESIGN.
  2. RIGHT-OF-WAY REQUIRED FOR THE HIGH-SPEED RAIL GUIDEWAY WILL DEPEND UPON CONDITIONS ALONG THE ALIGNMENT, INCLUDING TERRAIN, WHERE CUT/FILL SLOPES, RETAINING STRUCTURES, AND ACCESS ARE REQUIRED.
  3. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS. FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE ALIGNMENT PLAN AND PROFILE SHEETS.

REV	DATE	BY	CHK	APP	DESCRIPTION	DESIGNED BY A. SHIELDS	DRAWN BY C. VALADAO	CHECKED BY A. BOONE	IN CHARGE A. BOONE	DATE 07/20/2011

RECORD SET  
15% DESIGN  
SUBMITTAL  
**NOT FOR  
CONSTRUCTION**

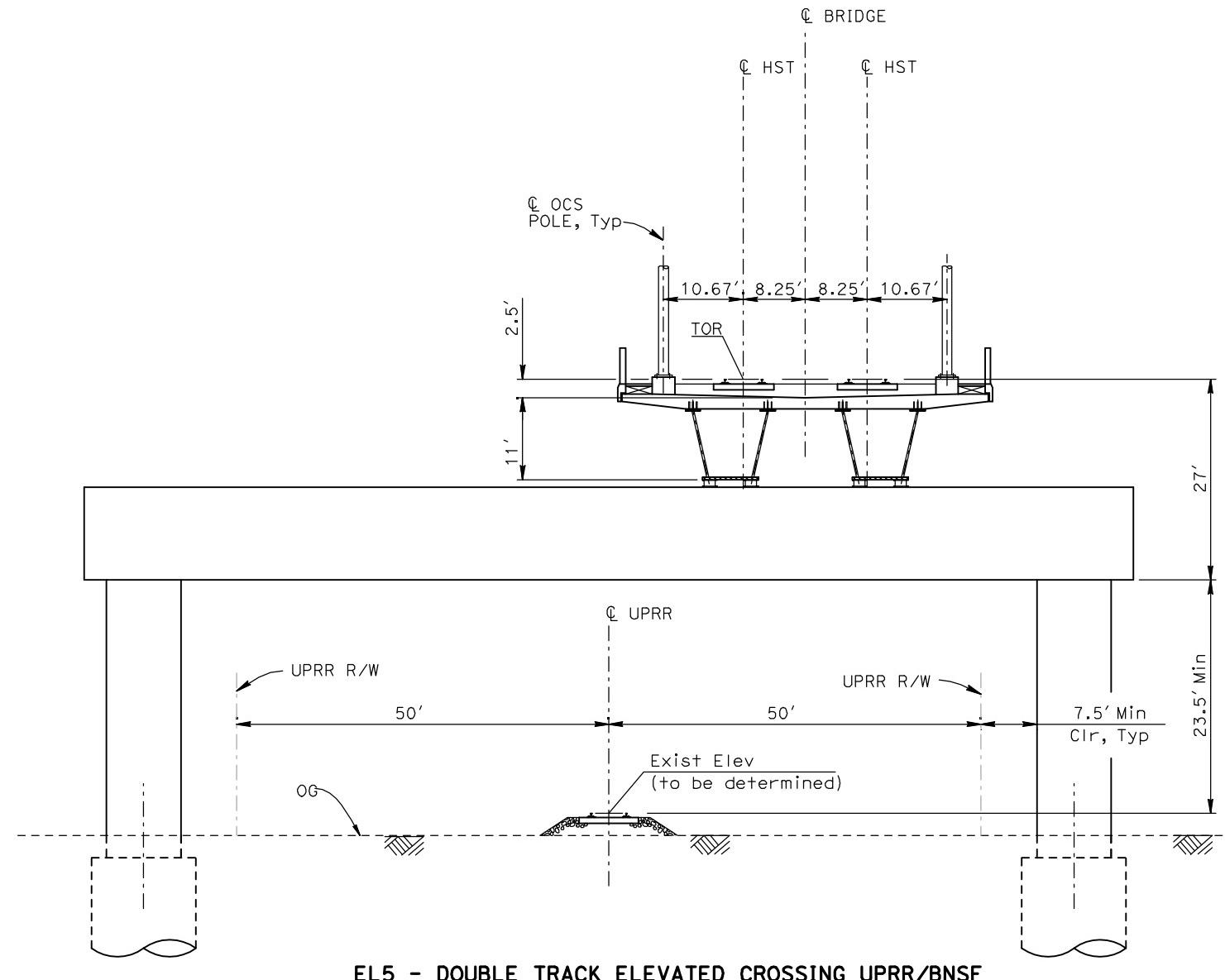
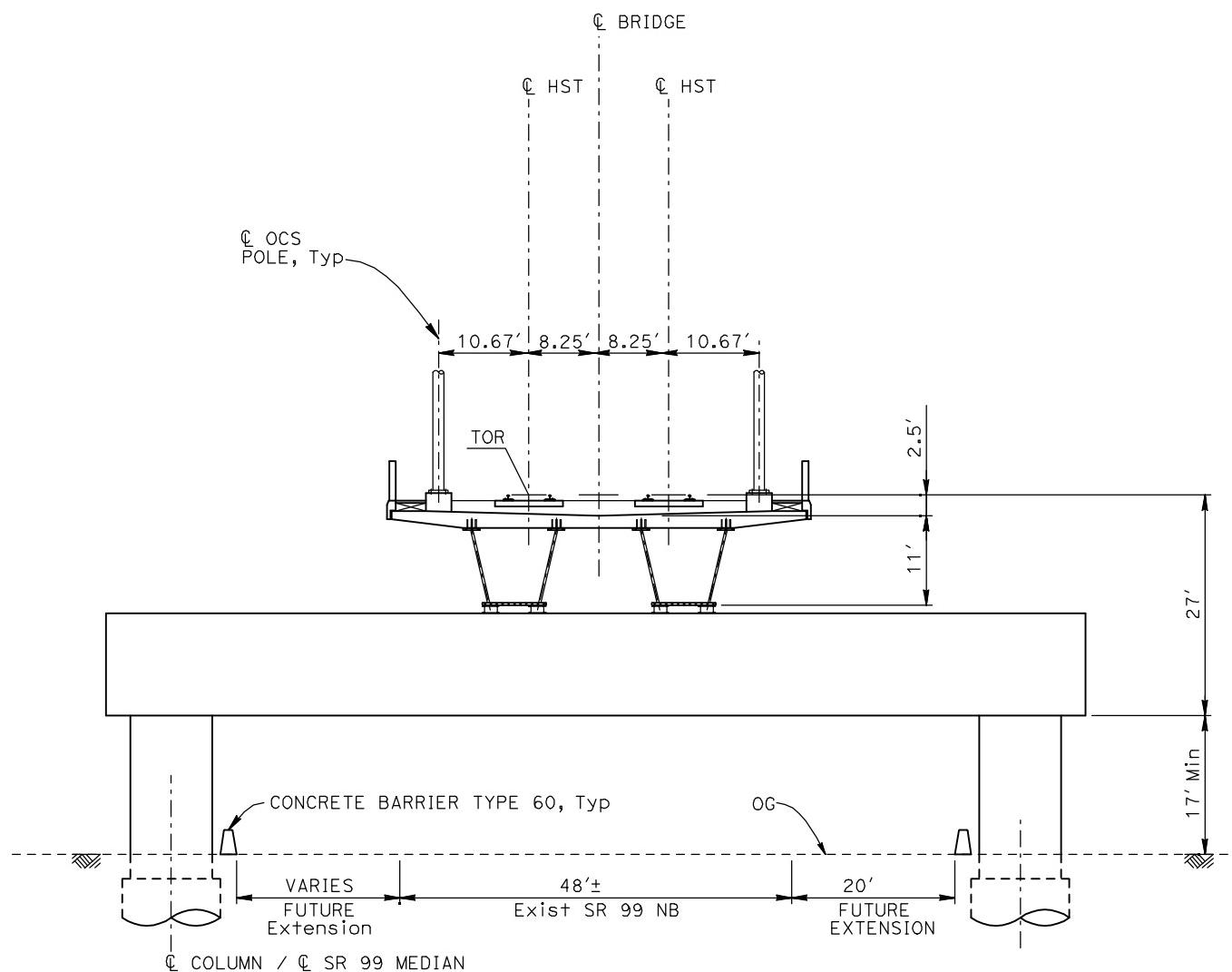
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2020 L Street, Suite 300  
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**CH2MHILL**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
MERCED TO FRESNO**

TYPICAL SECTIONS  
SHEET 5 OF 17

CONTRACT NO.  
HSR-007  
DRAWING NO.  
T3005-A  
SCALE  
NO SCALE  
SHEET NO.  
OF ####



## NOTES:

1. TRACK, OCS POLES AND FOUNDATIONS, CABLE DUCTS AND DRAINAGE ARE SCHEMATIC AND DO NOT REPRESENT DESIGN.
2. RIGHT-OF-WAY REQUIRED FOR THE HIGH-SPEED RAIL GUIDEWAY WILL DEPEND UPON CONDITIONS ALONG THE ALIGNMENT, INCLUDING TERRAIN, WHERE CUT/FILL SLOPES, RETAINING STRUCTURES, AND ACCESS ARE REQUIRED.
3. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS. FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE ALIGNMENT PLAN AND PROFILE SHEETS.

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. SHIELDS  
DRAWN BY  
C. VALADAO  
CHECKED BY  
A. BOONE  
IN CHARGE  
A. BOONE  
DATE  
07/20/2011

RECORD SET  
15% DESIGN  
SUBMITTAL  
**NOT FOR  
CONSTRUCTION**

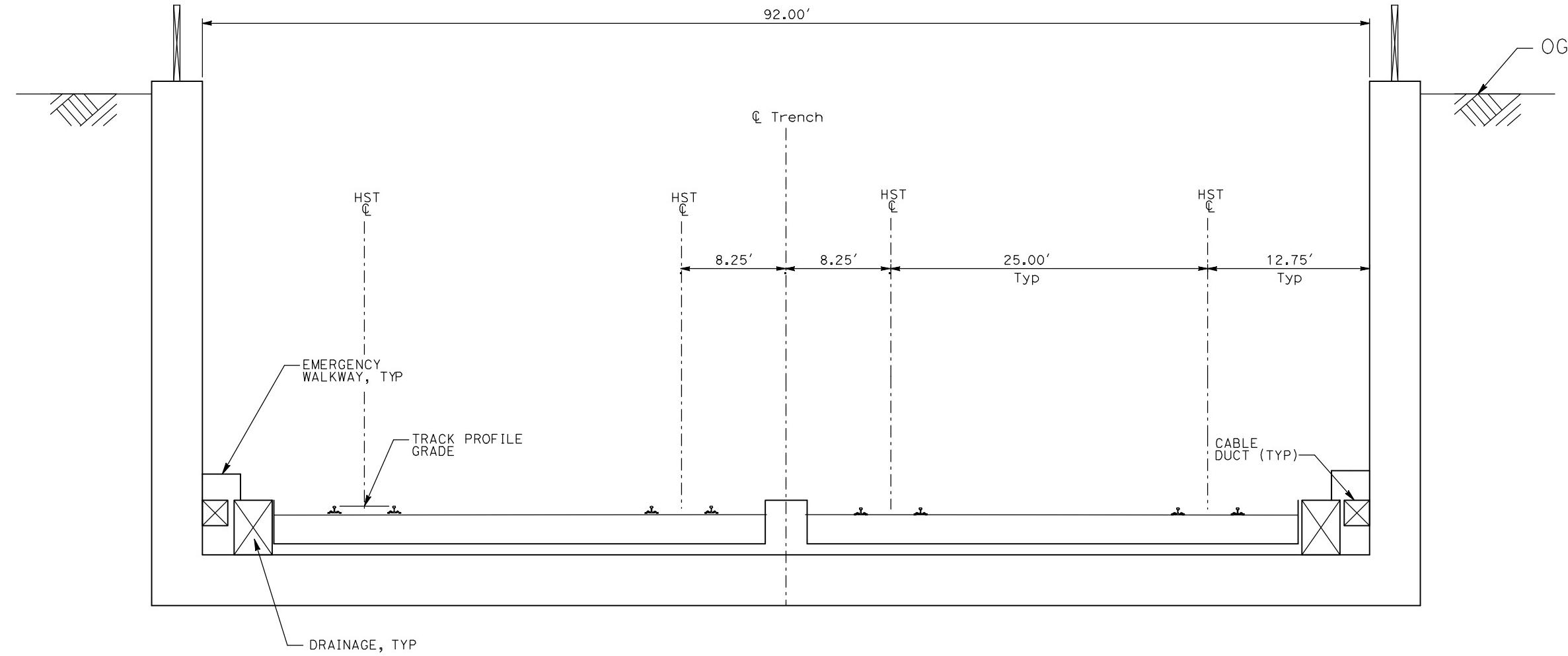
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Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811  
**CH2MHILL**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
MERCED TO FRESNO**

TYPICAL SECTIONS  
SHEET 6 OF 17

CONTRACT NO.  
HSR-007  
DRAWING NO.  
T3006-A  
SCALE  
NO SCALE  
SHEET NO.  
OF ###



TR1 - 4 TRACK TRENCH STATION APPROACH

- NOTES:
1. TRACK, OCS POLES AND FOUNDATIONS, CABLE DUCTS AND DRAINAGE ARE SCHEMATIC AND DO NOT REPRESENT DESIGN.
  2. RIGHT-OF-WAY REQUIRED FOR THE HIGH-SPEED RAIL GUIDEWAY WILL DEPEND UPON CONDITIONS ALONG THE ALIGNMENT, INCLUDING TERRAIN, WHERE CUT/FILL SLOPES, RETAINING STRUCTURES, AND ACCESS ARE REQUIRED.
  3. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS. FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE ALIGNMENT PLAN AND PROFILE SHEETS.

REV	DATE	BY	CHK	APP	DESCRIPTION
					07/20/2011

DESIGNED BY  
A. SHIELDS  
DRAWN BY  
C. VALADAO  
CHECKED BY  
A. BOONE  
IN CHARGE  
A. BOONE  
DATE  
07/20/2011

RECORD SET  
15% DESIGN  
SUBMITTAL  
**NOT FOR  
CONSTRUCTION**

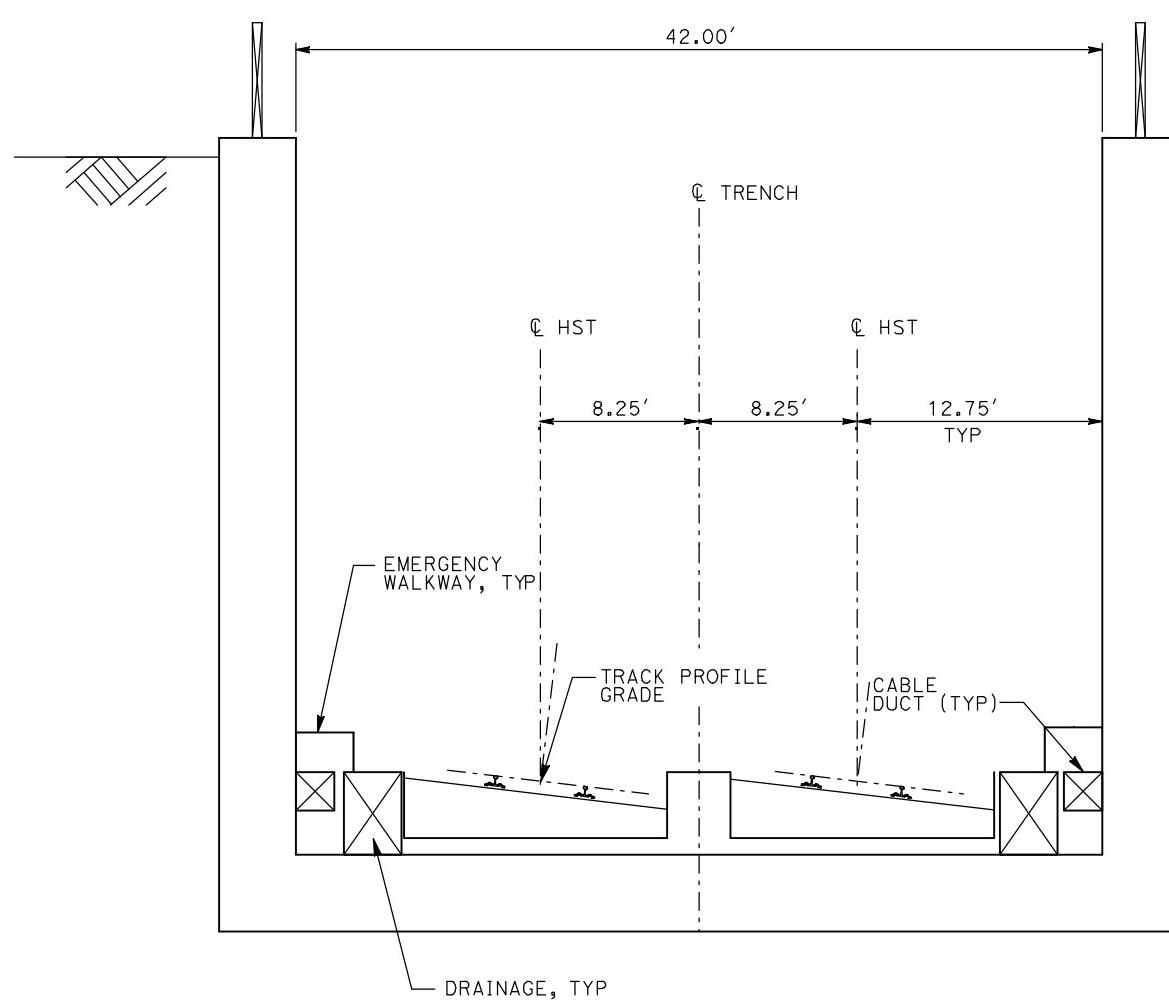
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2020 L Street, Suite 300  
Sacramento, CA 95811  
**CH2MHILL**



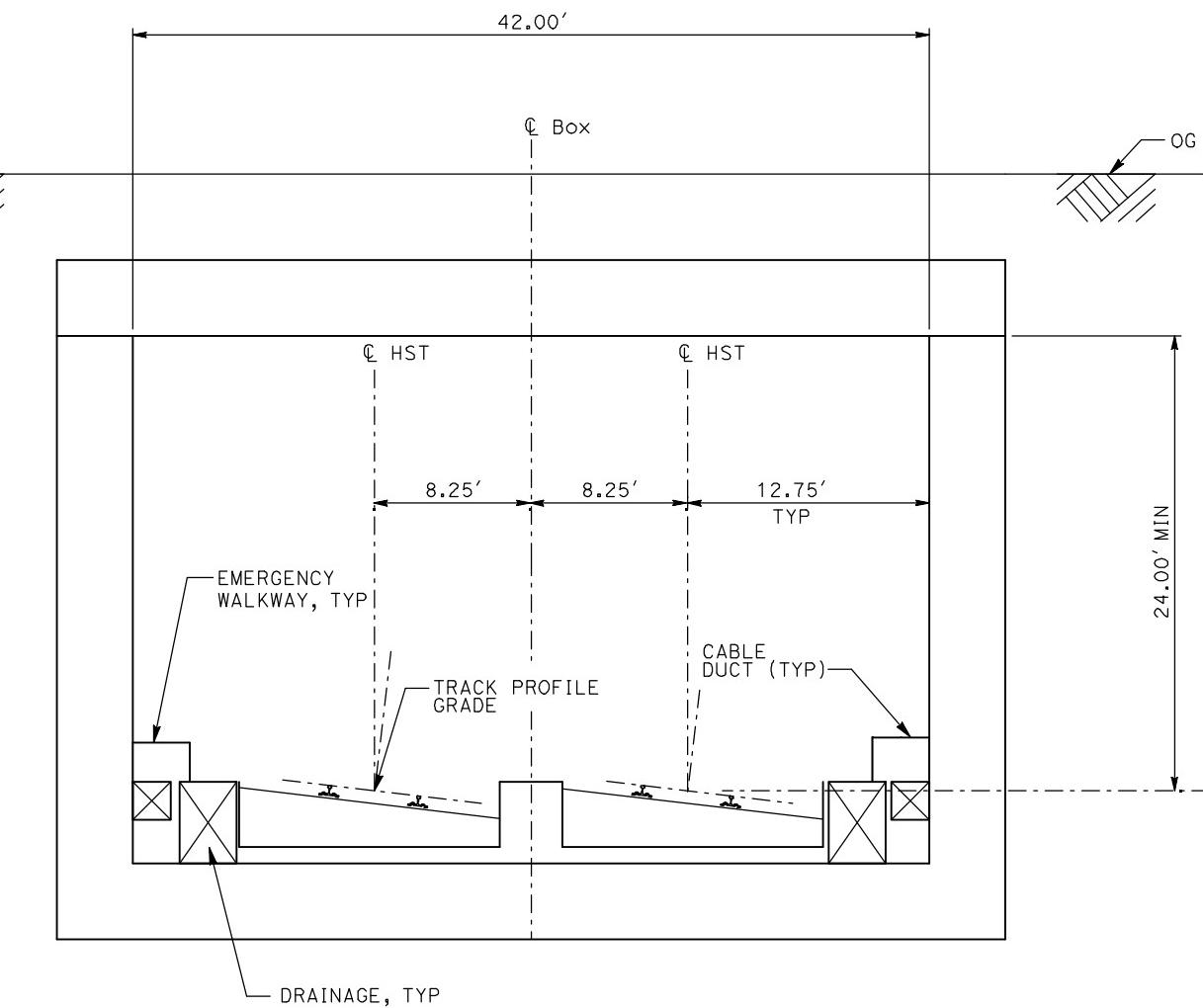
**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
MERCED TO FRESNO**

TYPICAL SECTIONS  
SHEET 7 OF 17

CONTRACT NO.  
HSR06-007  
DRAWING NO.  
T3007-A  
SCALE  
NO SCALE  
SHEET NO.  
OF ####



TR2 - 2 TRACK TRENCH



CC1 - 2 TRACK CUT AND COVER CLOSED BOX

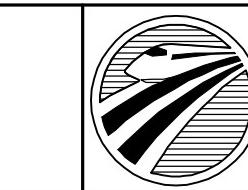
- NOTES:
1. TRACK, OCS POLES AND FOUNDATIONS, CABLE DUCTS AND DRAINAGE ARE SCHEMATIC AND DO NOT REPRESENT DESIGN.
  2. RIGHT-OF-WAY REQUIRED FOR THE HIGH-SPEED RAIL GUIDEWAY WILL DEPEND UPON CONDITIONS ALONG THE ALIGNMENT, INCLUDING TERRAIN, WHERE CUT/FILL SLOPES, RETAINING STRUCTURES, AND ACCESS ARE REQUIRED.
  3. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS. FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE ALIGNMENT PLAN AND PROFILE SHEETS.

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. SHIELDS  
DRAWN BY  
C. VALADAO  
CHECKED BY  
A. BOONE  
IN CHARGE  
A. BOONE  
DATE  
07/20/2011

RECORD SET  
15% DESIGN  
SUBMITTAL  
**NOT FOR  
CONSTRUCTION**

**AECOM**  
Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811  
**CH2MHILL**

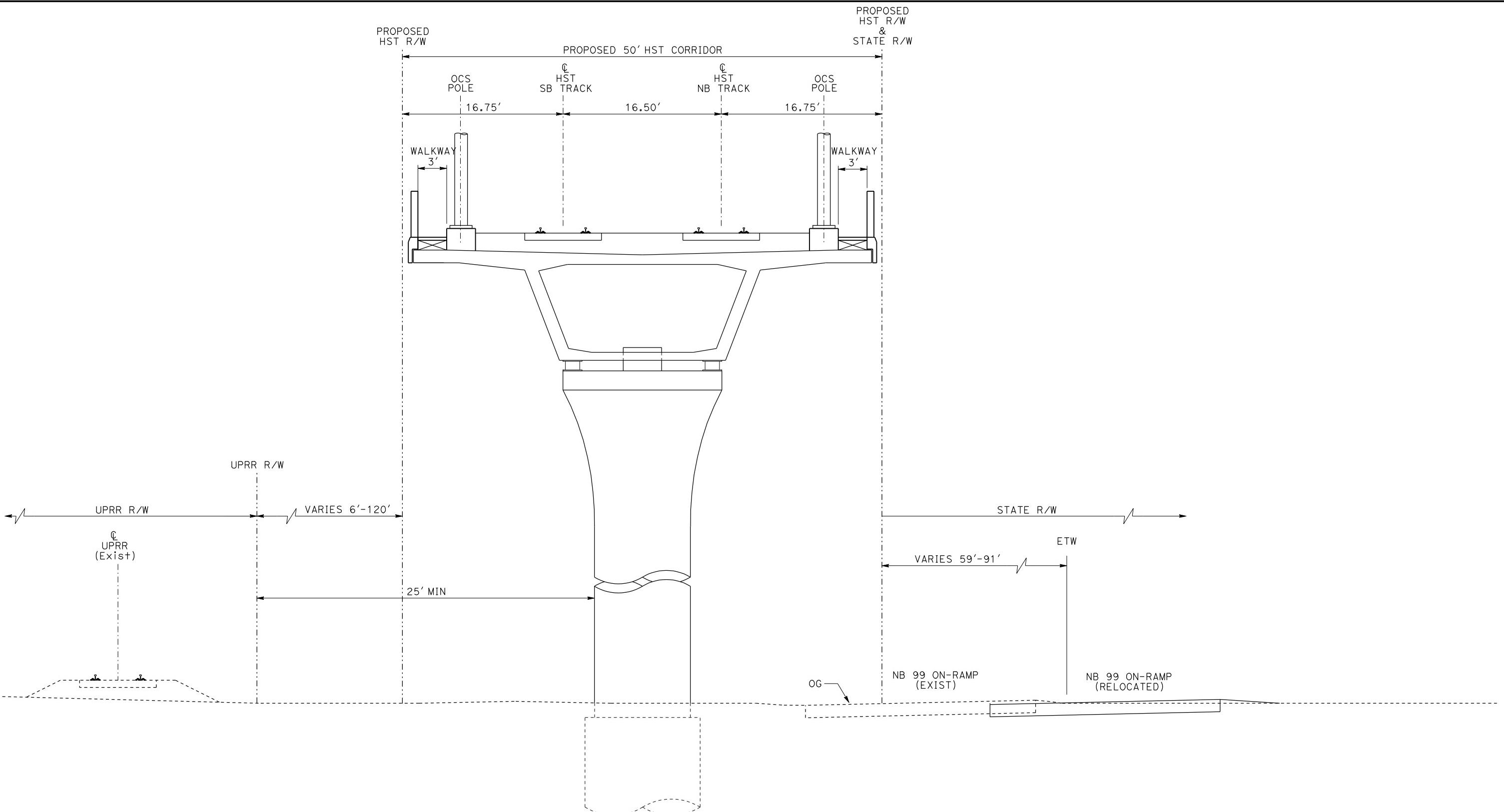


**CALIFORNIA**  
HIGH-SPEED RAIL AUTHORITY

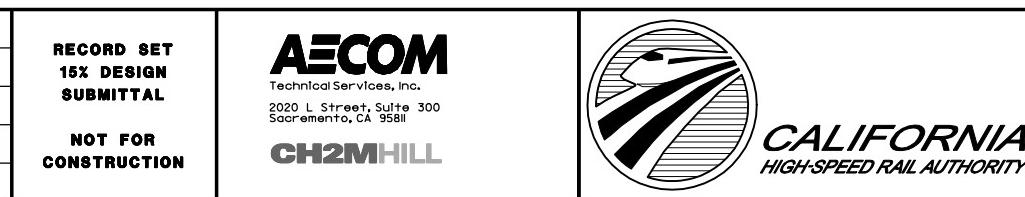
## CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO

TYPICAL SECTIONS  
SHEET 8 OF 17

CONTRACT NO.  
HSR-007  
DRAWING NO.  
T3008-A  
SCALE  
NO SCALE  
SHEET NO.  
OF ####



DESIGNED BY L. PROCTOR	RECORD SET 15% DESIGN SUBMITTAL	AECOM Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811			
DRAWN BY S. LEONG	NOT FOR CONSTRUCTION	CH2MHILL			
CHECKED BY V. CHIO					
IN CHARGE J. VALSECCHI					
DATE JULY 2011					
REV	DATE	BY	CHK	APP	DESCRIPTION



**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
MERCED TO FRESNO**

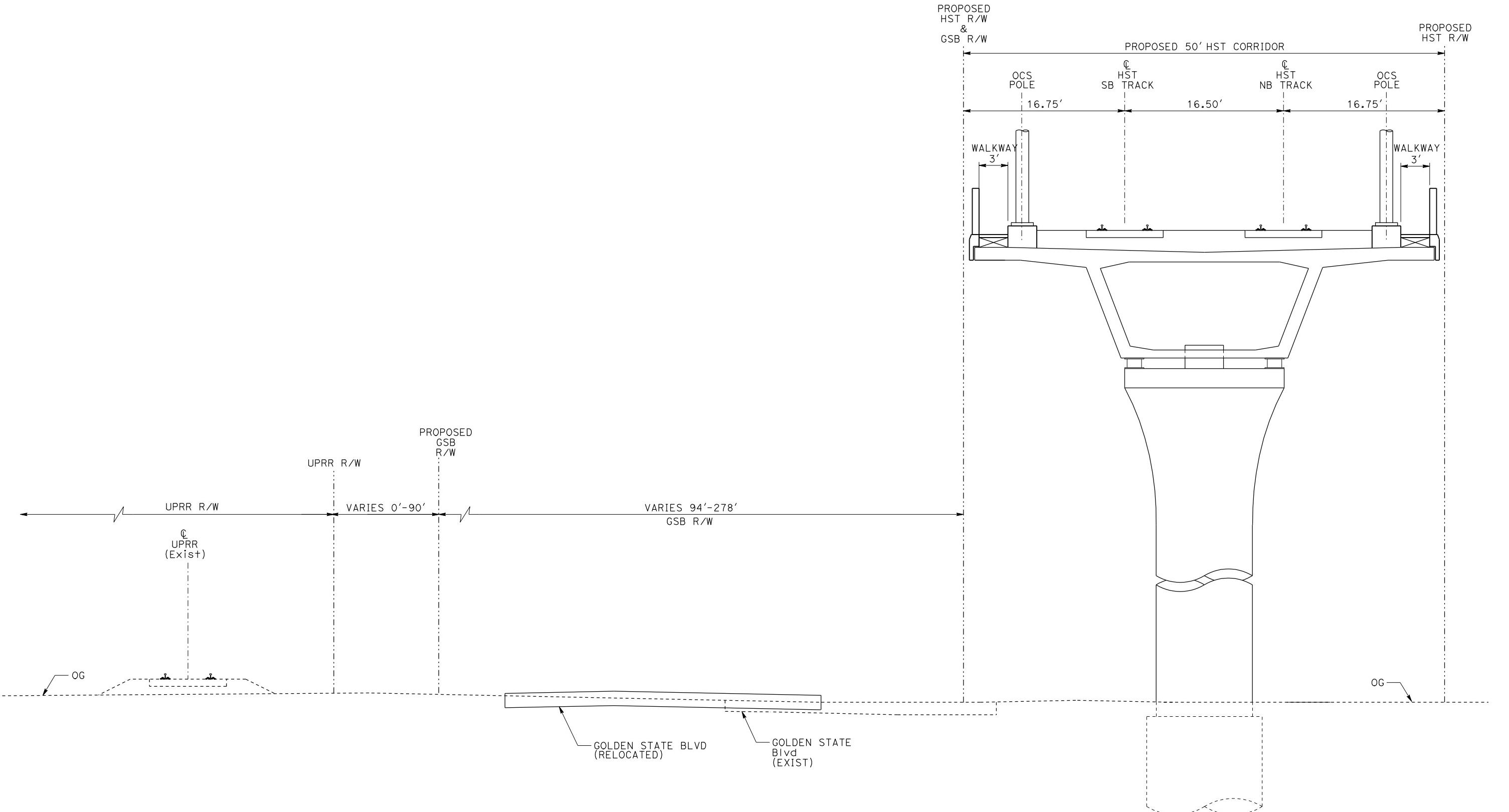
TYPICAL SECTIONS  
SHEET 9 OF 17

CONTRACT NO.  
HSR06-007

DRAWING NO.  
T3009-A

SCALE  
NO SCALE

SHEET NO.

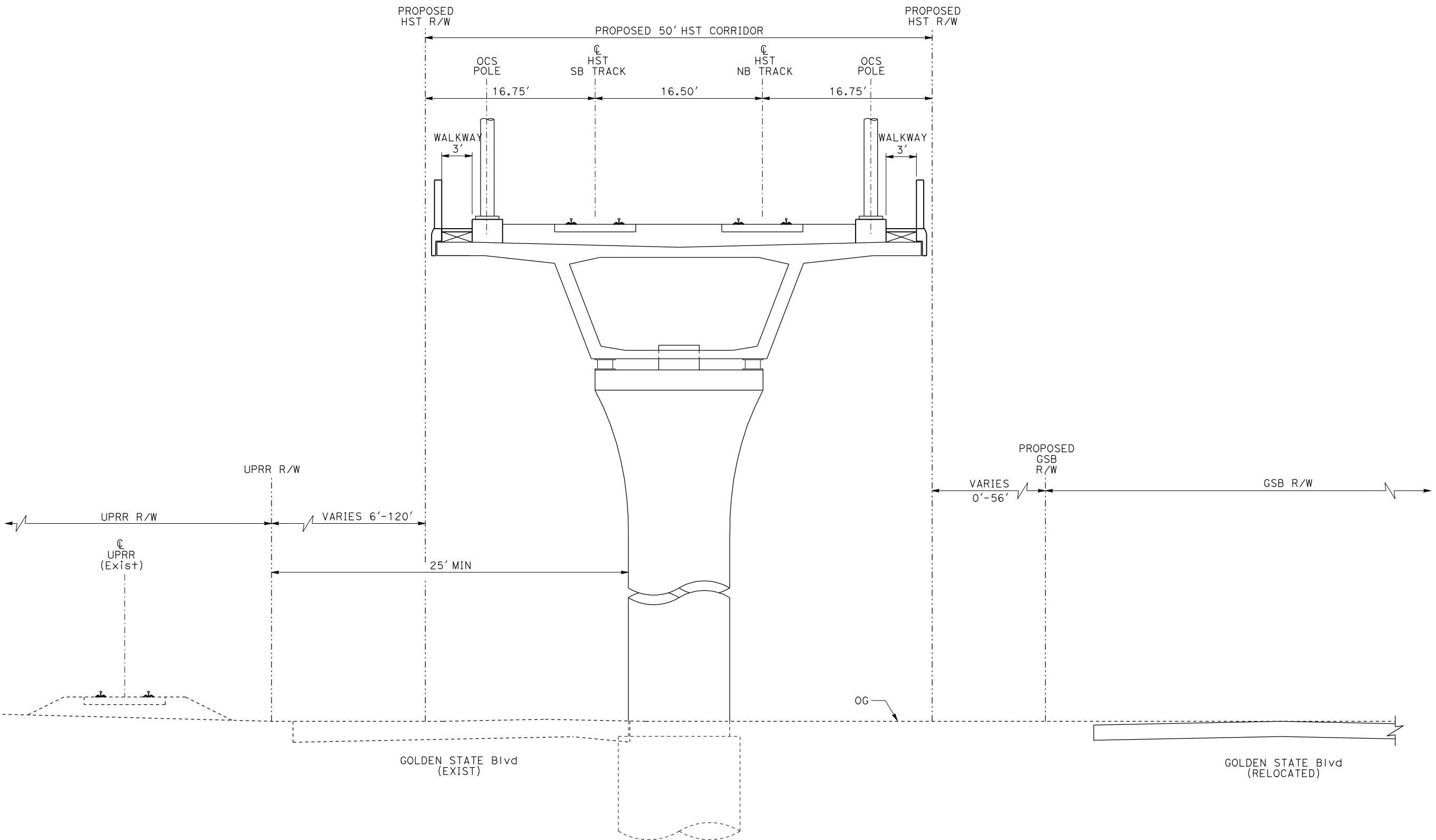


EL7 - DOUBLE TRACK ELEVATED ADJACENT TO GOLDEN STATE BOULEVARD

NOTE:  
POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS.  
FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE  
ALIGNMENT PLAN AND PROFILE SHEETS.

DESIGNED BY L. PROCTOR	RECORD SET 15% DESIGN SUBMITTAL	AECOM Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811	CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO	CONTRACT NO. HSR06-007
DRAWN BY S. LEONG	NOT FOR CONSTRUCTION	CH2MHILL		DRAWING NO. T3010-A
CHECKED BY V. CHIO				SCALE NO SCALE
IN CHARGE J. VALSECCHI				SHEET NO. 12-14
REV DATE BY CHK APP	DESCRIPTION	JULY 2011	TYPICAL SECTIONS SHEET 10 OF 17	DATE PLOTTED => 21-JUL-2011 TIME PLOTTED => 12:14





EL8 - DOUBLE TRACK ELEVATED BETWEEN UPRR AND GOLDEN STATE BOULEVARD

NOTE:

POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS.  
FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE  
ALIGNMENT PLAN AND PROFILE SHEETS.

REV	DATE	BY	CHK	APP	DESCRIPTION
					JULY 2011

DESIGNED BY  
L. PROCTOR  
DRAWN BY  
S. LEONG  
CHECKED BY  
V. CHIO  
IN CHARGE  
J. VALSECCHI  
  
NOT FOR  
CONSTRUCTION

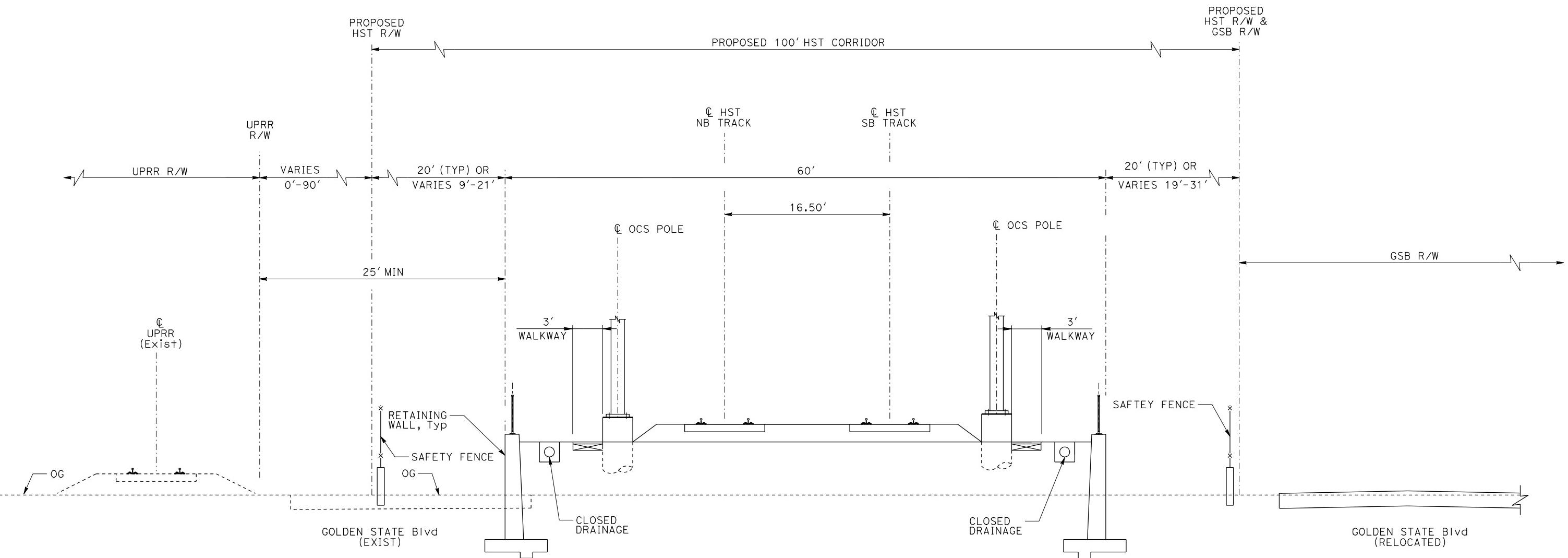
**AECOM**  
Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811  
**CH2MHILL**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
MERCED TO FRESNO**

TYPICAL SECTIONS  
SHEET 11 OF 17

CONTRACT NO.  
HSR06-007  
DRAWING NO.  
T3011-A  
SCALE  
NO SCALE  
SHEET NO.  
TIME PLOTTED => 21-JUL-2011



RF3 - DOUBLE TRACK BETWEEN UPRR AND GOLDEN STATE BOULEVARD

NOTE:

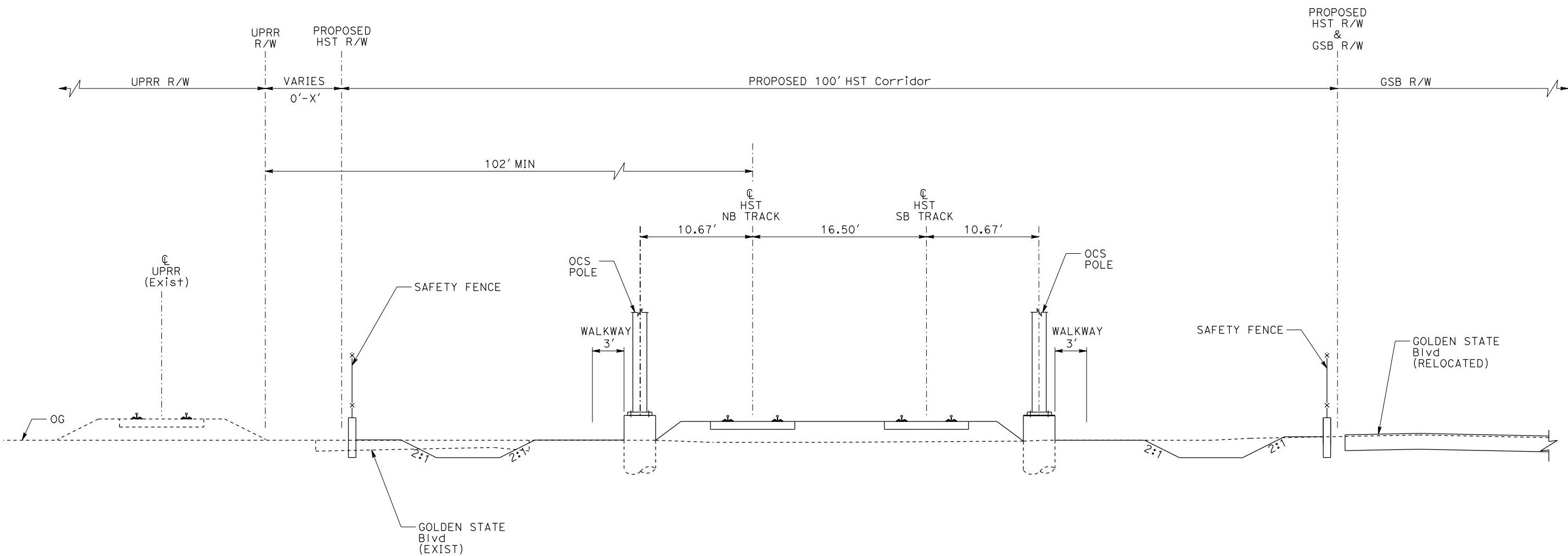
POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS.  
FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE  
ALIGNMENT PLAN AND PROFILE SHEETS.

DESIGNED BY L. PROCTOR	RECORD SET 15% DESIGN SUBMITTAL	AECOM Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811	CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO	CONTRACT NO. HSR06-007
DRAWN BY S. LEONG	NOT FOR CONSTRUCTION	CH2MHILL		DRAWING NO. T3012-A
CHECKED BY V. CHIO				SCALE NO SCALE
IN CHARGE J. VALSECCHI				SHEET NO. 12
REV DATE BY CHK APP	DESCRIPTION	JULY 2011	TYPICAL SECTION SHEET 12 OF 17	DATE PLOTTED => 21-JUL-2011 TIME PLOTTED => 12:47

RECORD SET  
15% DESIGN  
SUBMITTAL  
**NOT FOR  
CONSTRUCTION**

**AECOM**  
Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811  
**CH2MHILL**





AG6 - DOUBLE TRACK BETWEEN UPRR AND GOLDEN STATE BOULEVARD

NOTE:

POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS.  
FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE  
ALIGNMENT PLAN AND PROFILE SHEETS.

REV	DATE	BY	CHK	APP	DESCRIPTION	DESIGNED BY L. PROCTOR	DRAWN BY S. LEONG	CHECKED BY V. CHIO	IN CHARGE J. VALSECCHI
					JULY 2011				

RECORD SET  
15% DESIGN  
SUBMITTAL  
**NOT FOR  
CONSTRUCTION**

**AECOM**  
Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811  
**CH2MHILL**



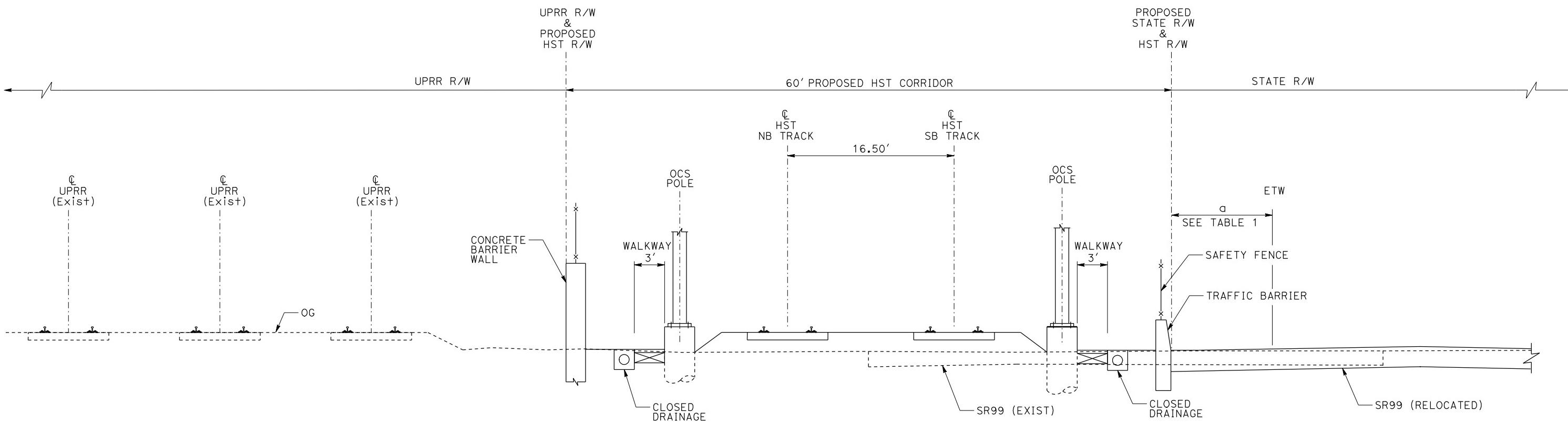
**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
MERCED TO FRESNO**

TYPICAL SECTION  
SHEET 13 OF 17

CONTRACT NO.  
HSR06-007  
DRAWING NO.  
T3013-A  
SCALE  
NO SCALE  
SHEET NO.

TABLE 1

$a > 30'$	NO TRAFFIC BARRIER
$4' < a < 30'$	TRAFFIC BARRIER



## AG7 - DOUBLE TRACK BETWEEN UPRR AND STATE ROUTE 99

## NOTE:

POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS.  
FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE  
ALIGNMENT PLAN AND PROFILE SHEETS.

DESIGNED BY L. PROCTOR	DRAWN BY S. LEONG	CHECKED BY V. CHIO	IN CHARGE J. VALSECCHI

REV DATE BY CHK APP DESCRIPTION

JULY 2011

RECORD SET  
15% DESIGN  
SUBMITTAL  
**NOT FOR  
CONSTRUCTION**

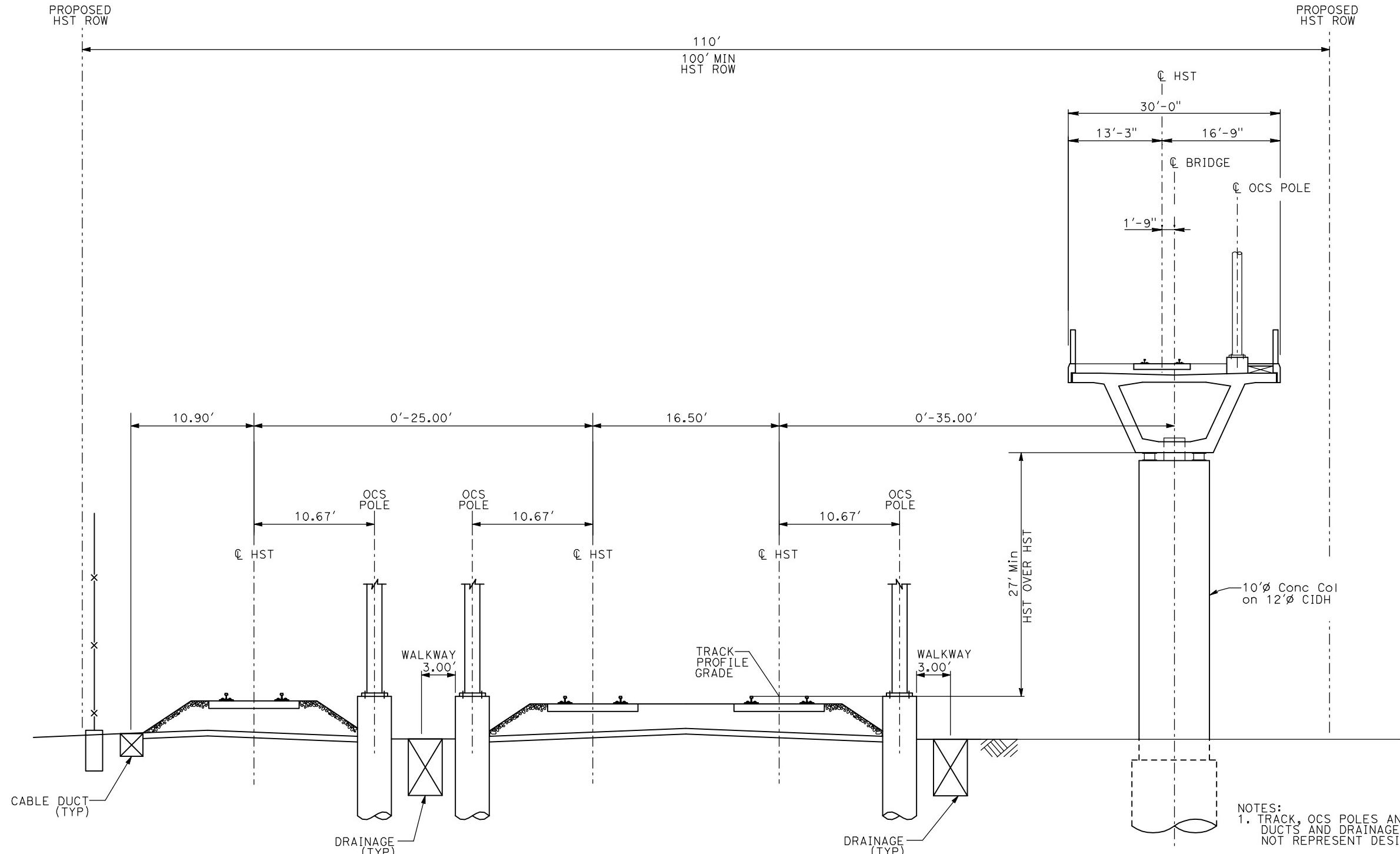
**AECOM**  
Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811  
**CH2MHILL**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
MERCED TO FRESNO**

TYPICAL SECTION  
SHEET 14 OF 17

CONTRACT NO.  
HSR06-007  
DRAWING NO.  
T3014-A  
SCALE  
NO SCALE  
SHEET NO.  
TIME PLOTTED => 12:56  
DATE PLOTTED => 21-JUL-2011



REV	DATE	BY	CHK	APP

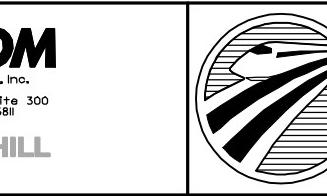
DESCRIPTION				

DESIGNED BY  
A. SHIELDS  
DRAWN BY  
C. VALADAO  
CHECKED BY  
A. BOONE  
IN CHARGE  
A. BOONE  
DATE  
07/20/2011

RECORD SET  
15% DESIGN  
SUBMITTAL

NOT FOR  
CONSTRUCTION

**AECOM**  
Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811  
**CH2MHILL**

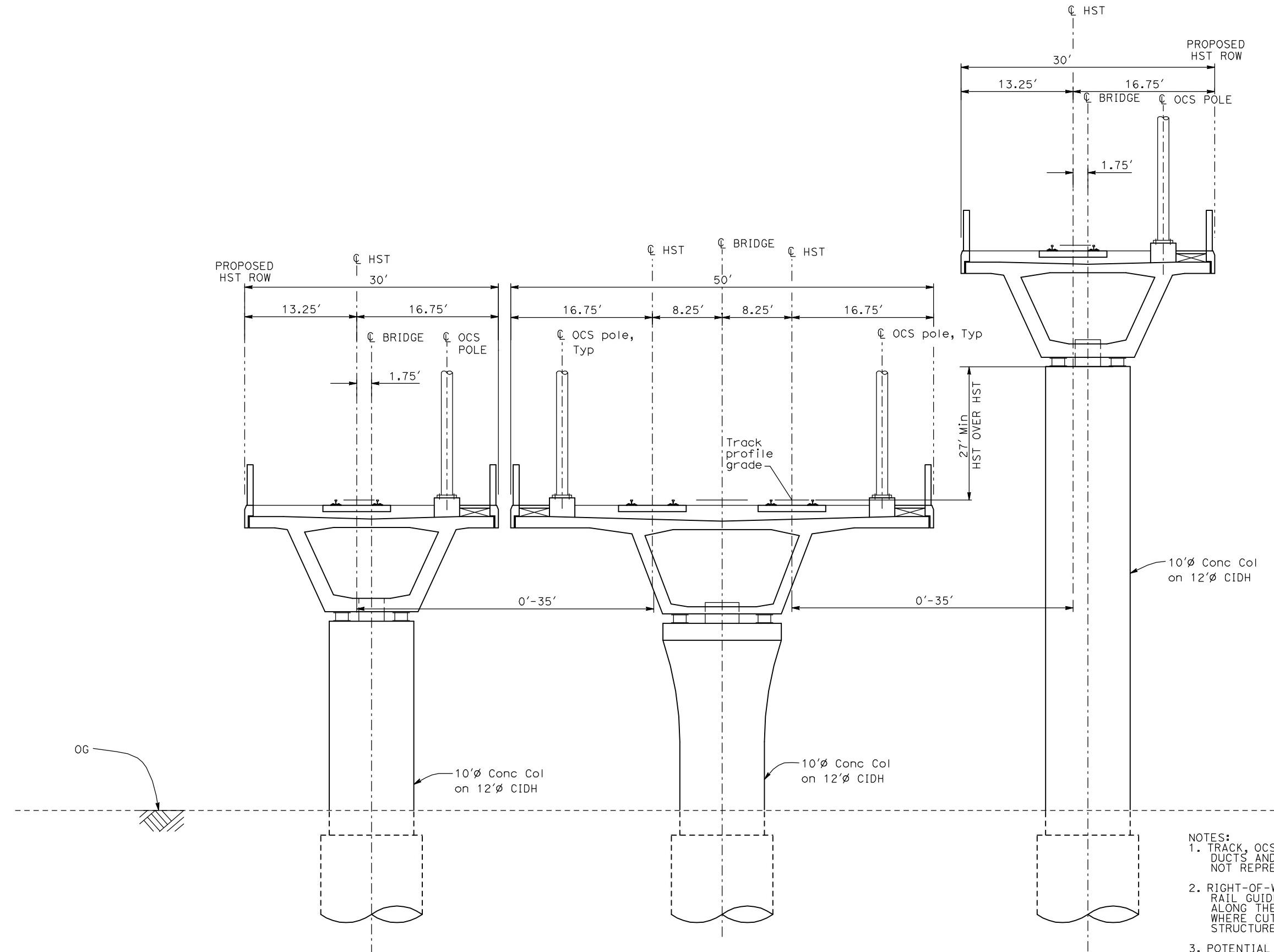


CALIFORNIA  
HIGH-SPEED RAIL AUTHORITY

**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
MERCED TO FRESNO**

TYPICAL SECTIONS  
SHEET 15 OF 17

CONTRACT NO.  
HSR-007  
DRAWING NO.  
T3015-A  
SCALE  
NO SCALE  
SHEET NO.  
OF ###



WYE2 - WYE CONNECTION GRADE SEPERATED

- NOTES:
1. TRACK, OCS POLES AND FOUNDATIONS, CABLE DUCTS AND DRAINAGE ARE SCHEMATIC AND DO NOT REPRESENT DESIGN.
  2. RIGHT-OF-WAY REQUIRED FOR THE HIGH-SPEED RAIL GUIDEWAY WILL DEPEND UPON CONDITIONS ALONG THE ALIGNMENT, INCLUDING TERRAIN, WHERE CUT/FILL SLOPES, RETAINING STRUCTURES, AND ACCESS ARE REQUIRED.
  3. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS. FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE ALIGNMENT PLAN AND PROFILE SHEETS.

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. SHIELDS  
DRAWN BY  
C. VALADAO  
CHECKED BY  
A. BOONE  
IN CHARGE  
A. BOONE  
DATE  
07/20/2011

RECORD SET  
15% DESIGN  
SUBMITTAL  
**NOT FOR  
CONSTRUCTION**

**AECOM**  
Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811  
**CH2MHILL**

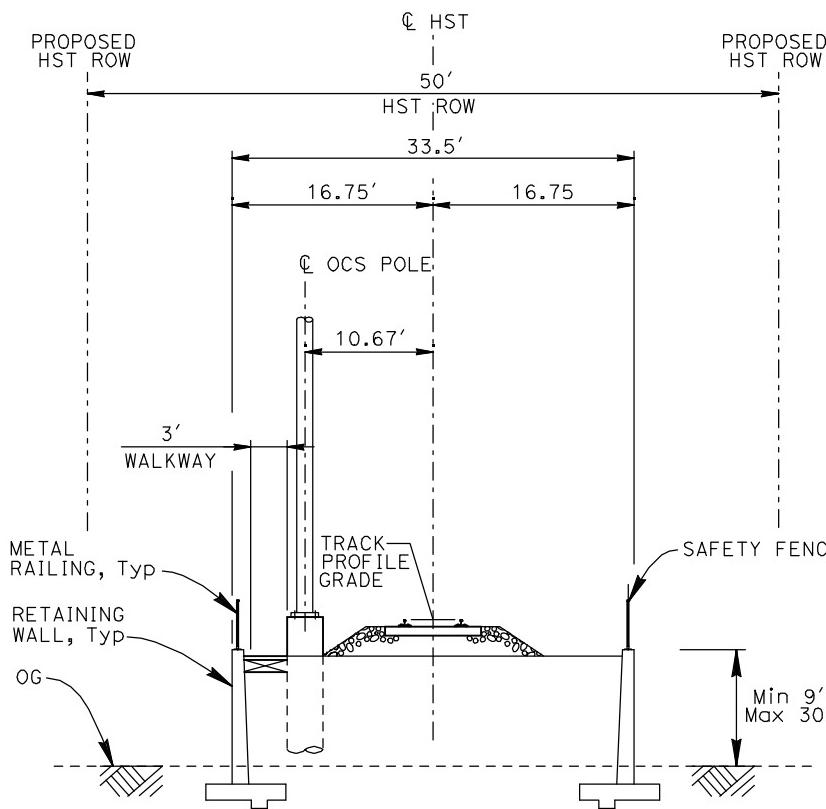


CALIFORNIA  
HIGH-SPEED RAIL AUTHORITY

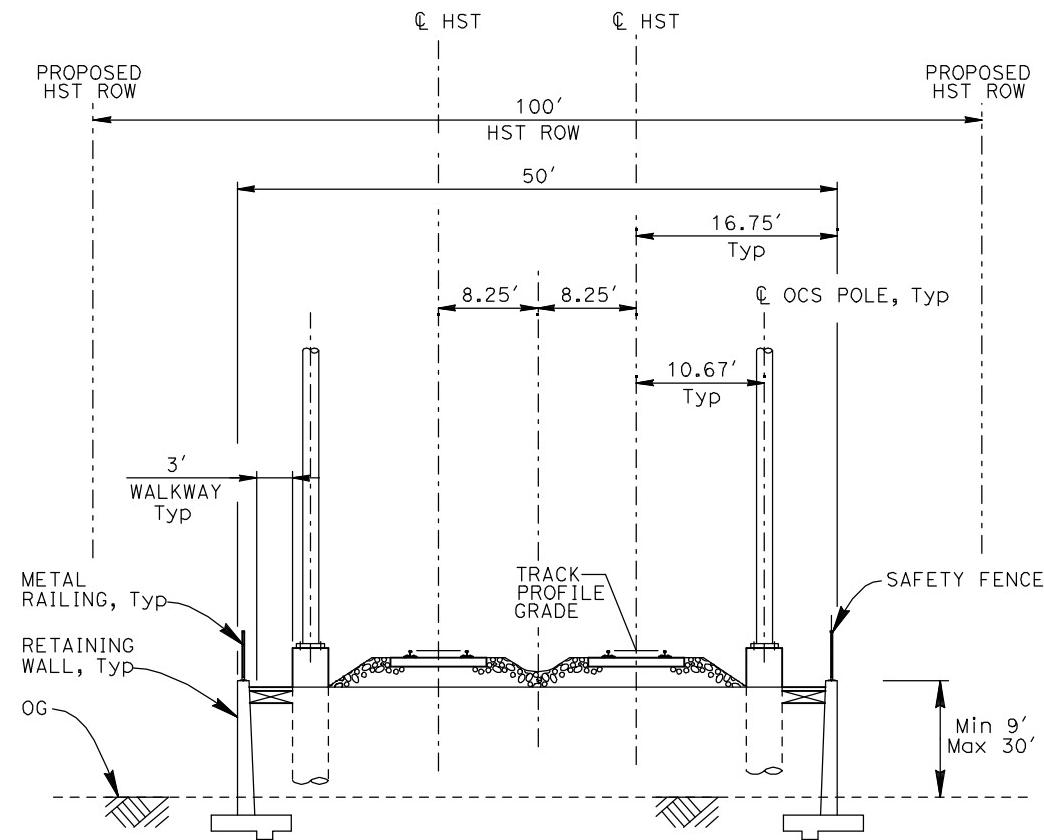
**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
MERCED TO FRESNO**

TYPICAL SECTIONS  
SHEET 16 OF 17

CONTRACT NO.  
HSR-007  
DRAWING NO.  
T3016-A  
SCALE  
NO SCALE  
SHEET NO.  
OF ####



RF1 - SINGLE TRACK RETAINED FILL



RF2 - DOUBLE TRACK RETAINED FILL

- NOTES:
1. TRACK, OCS POLES AND FOUNDATIONS, CABLE DUCTS AND DRAINAGE ARE SCHEMATIC AND DO NOT REPRESENT DESIGN.
  2. RIGHT-OF-WAY REQUIRED FOR THE HIGH-SPEED RAIL GUIDEWAY WILL DEPEND UPON CONDITIONS ALONG THE ALIGNMENT, INCLUDING TERRAIN, WHERE CUT/FILL SLOPES, RETAINING STRUCTURES, AND ACCESS ARE REQUIRED.
  3. POTENTIAL SOUND BARRIERS NOT SHOWN IN CROSS SECTIONS. FOR THE EXTENT OF POTENTIAL SOUND BARRIERS, SEE ALIGNMENT PLAN AND PROFILE SHEETS.

REV	DATE	BY	CHK	APP	DESCRIPTION
					07/20/2011

DESIGNED BY  
A. SHIELDS  
DRAWN BY  
C. VALADAO  
CHECKED BY  
A. BOONE  
IN CHARGE  
A. BOONE  
DATE  
07/20/2011

RECORD SET  
15% DESIGN  
SUBMITTAL  
**NOT FOR  
CONSTRUCTION**

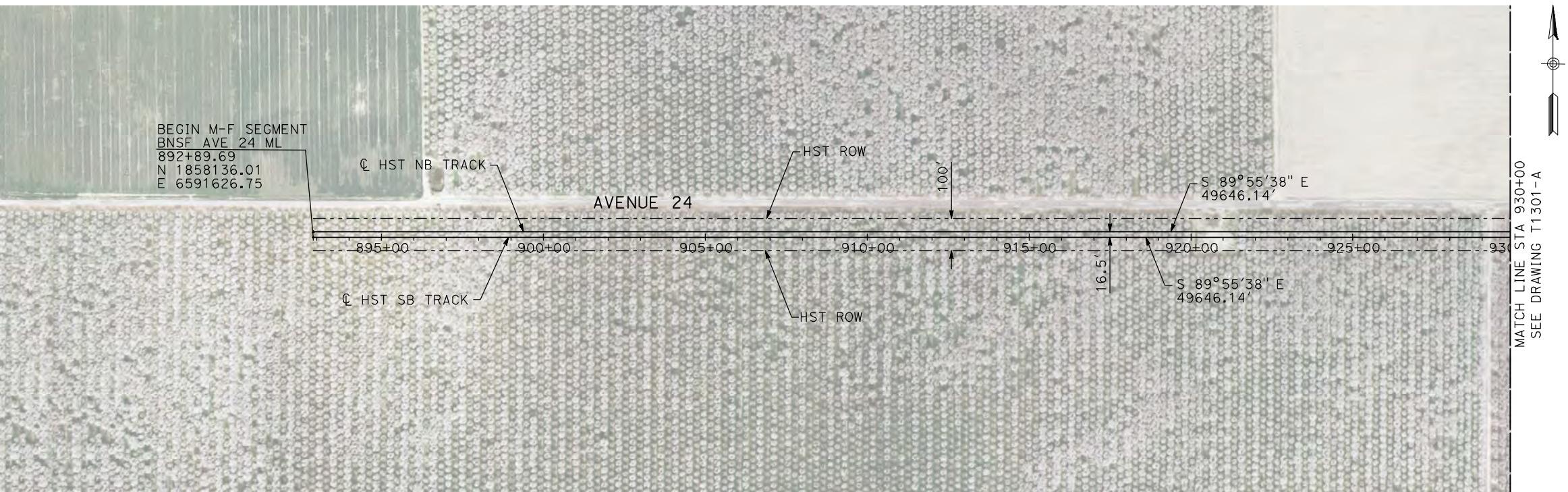
**AECOM**  
Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811  
**CH2MHILL**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
MERCED TO FRESNO**

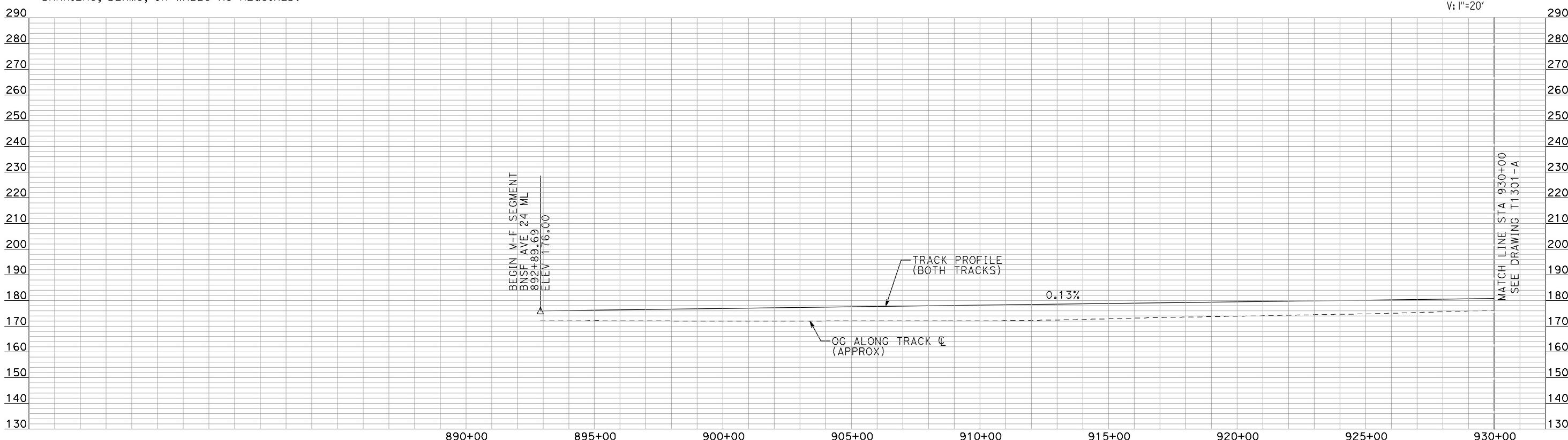
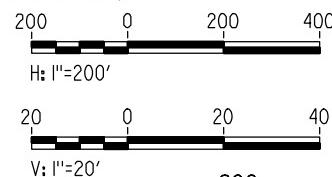
TYPICAL SECTIONS  
SHEET 17 OF 17

CONTRACT NO.  
HSR06-007  
DRAWING NO.  
T3017-A  
SCALE  
NO SCALE  
SHEET NO.  
OF ####



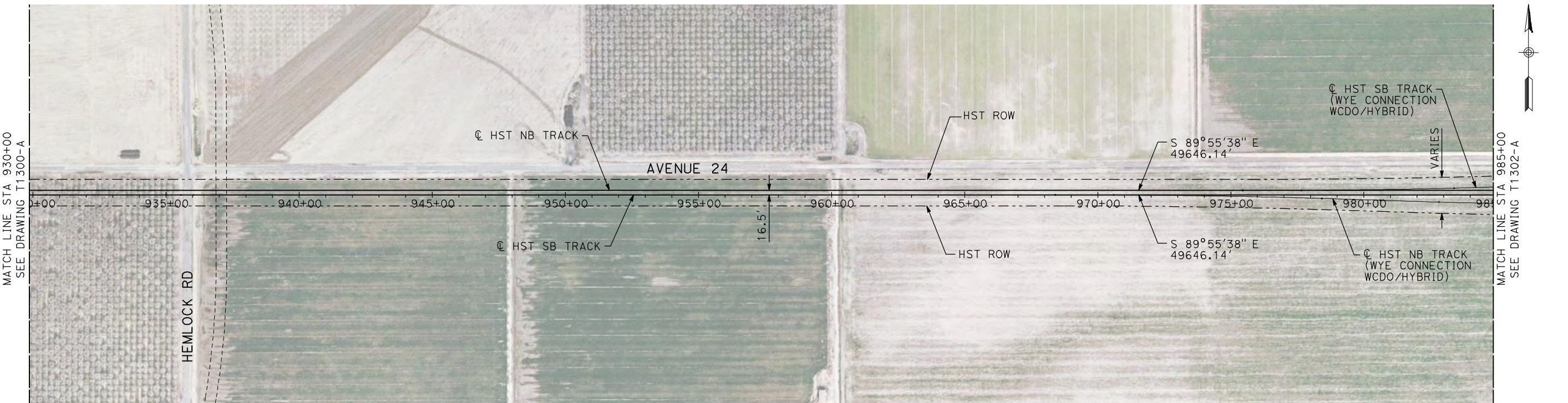
- NOTES:
- ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
  - TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

**PLAN**



"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

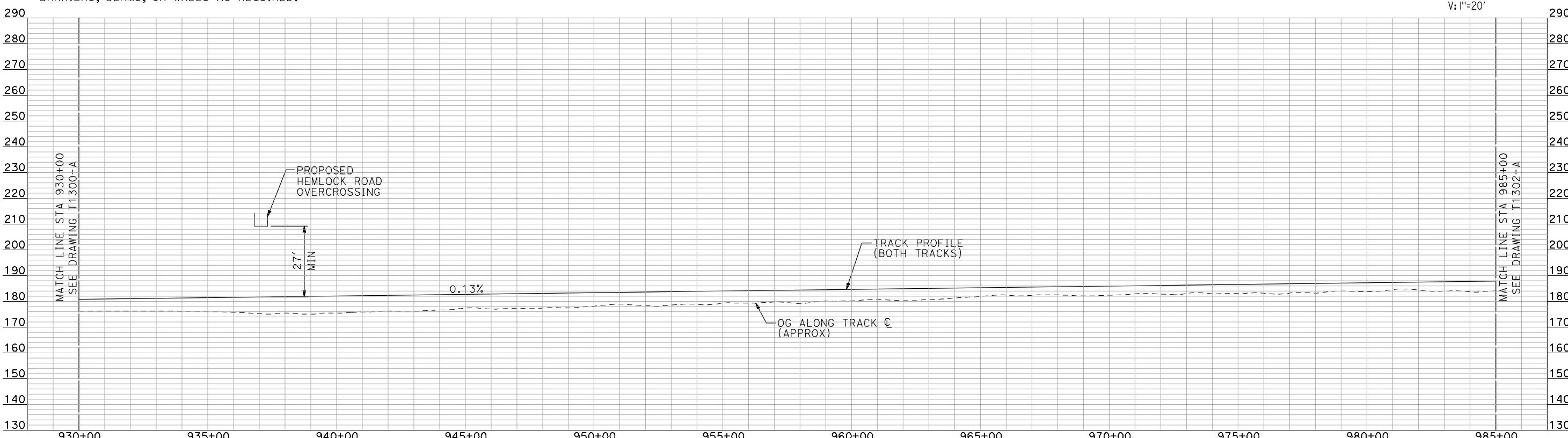
DESIGNED BY A. SHIELDS	RECORD SET 15% DESIGN SUBMITTAL	AECOM Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811	CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO	CONTRACT NO. HSR-007
DRAWN BY H. SULLIVAN	NOT FOR CONSTRUCTION	CH2MHILL	BNSF MAIN LINE AVENUE 24 PLAN AND PROFILE	DRAWING NO. T1300-A
CHECKED BY A. BOONE			STA 892+89.69 TO STA 930+00	SCALE AS SHOWN
IN CHARGE A. BOONE				SHEET NO. ### OF ###
DATE 07/20/2011				
REV	DATE	BY	CHK	APP
				DESCRIPTION



**NOTES:**

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

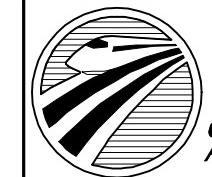
PLAN



## **PROFILE**

"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

**RECORD SET  
15% DESIGN  
SUBMITTAL**

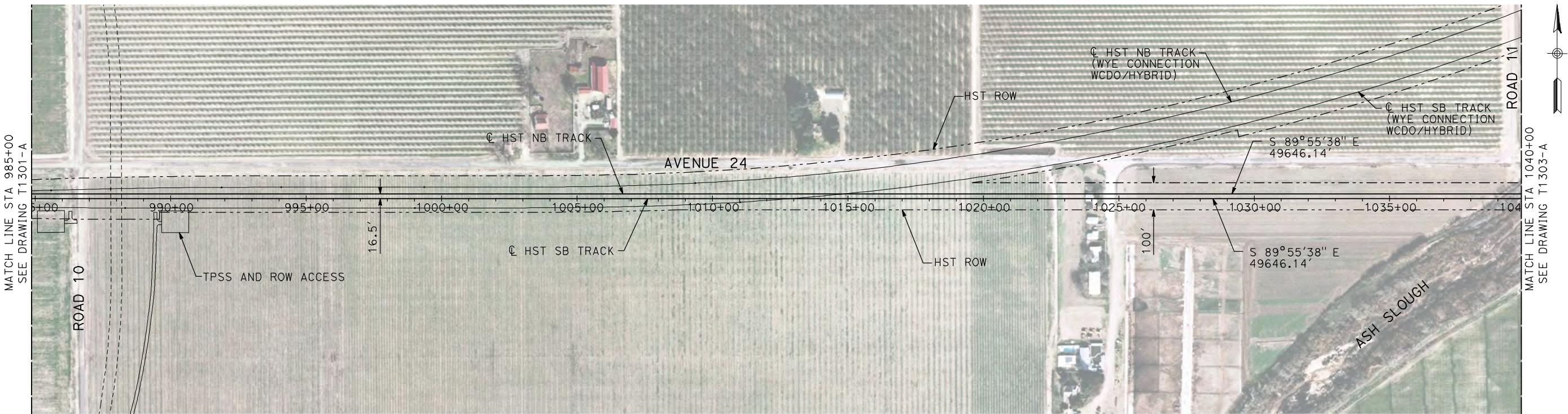


**CALIFORNIA**  
**HIGH-SPEED RAIL AUTHORITY**

# **CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO**

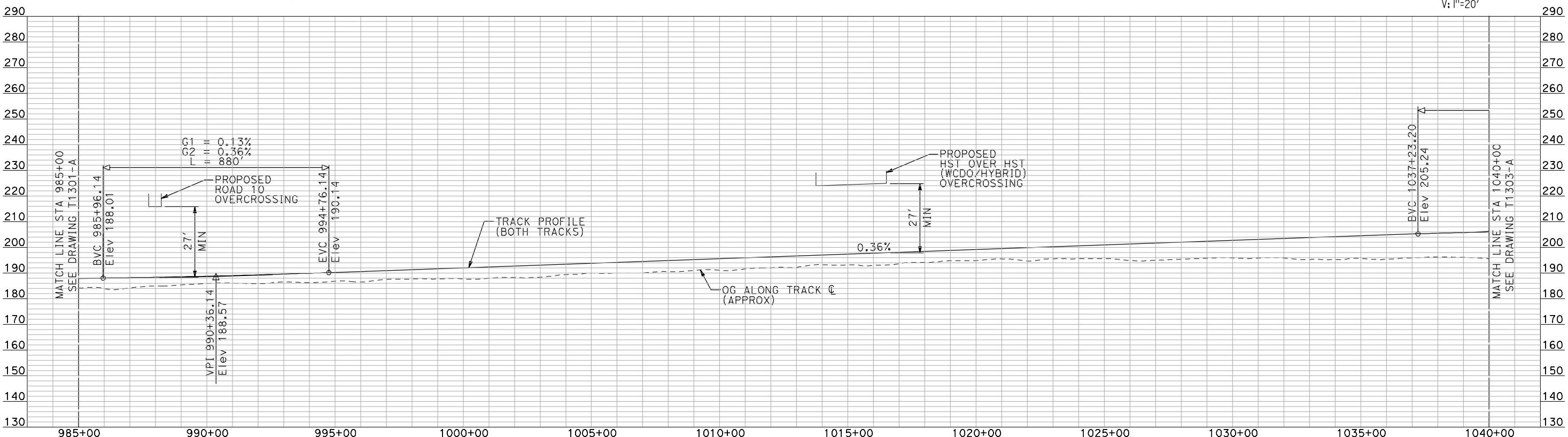
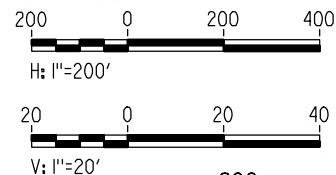
BNSF MAIN LINE  
AVENUE 24  
PLAN AND PROFILE  
930+00 TO STA 985+00

CONTRACT NO. HSRO6-007  
DRAWING NO. T1301-A  
SCALE AS SHOWN  
SHEET NO. #### OF ####



- NOTES:
- ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
  - TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

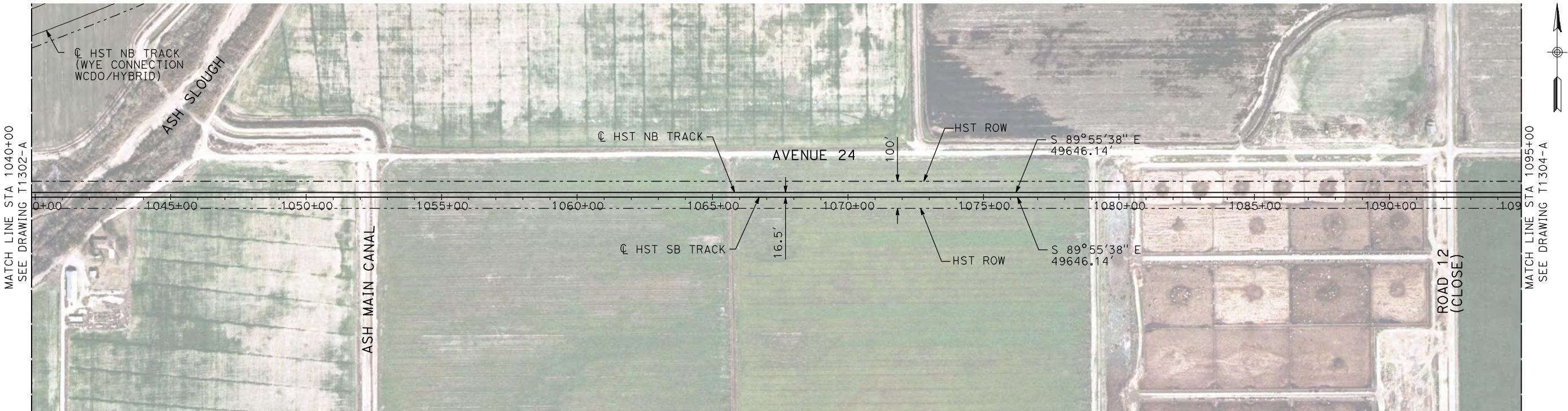
**PLAN**



**PROFILE**

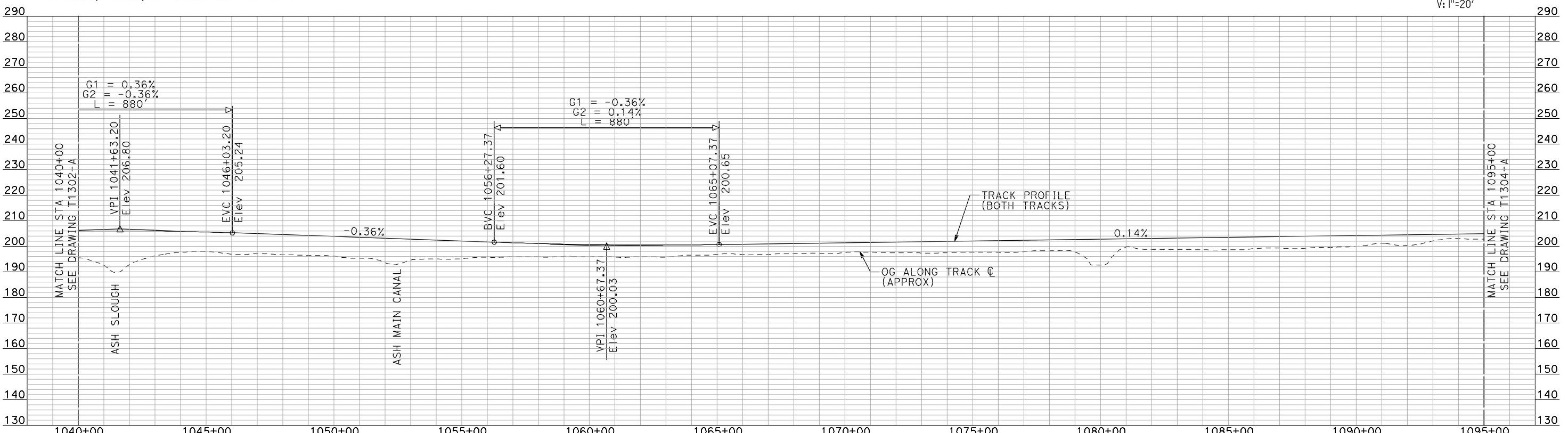
"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

DESIGNED BY A. SHIELDS	RECORD SET 15% DESIGN SUBMITTAL	AECOM Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811	CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO	CONTRACT NO. HSR-007
DRAWN BY H. SULLIVAN	NOT FOR CONSTRUCTION	CH2MHILL	BNSF MAIN LINE AVENUE 24 PLAN AND PROFILE	DRAWING NO. T1302-A
CHECKED BY A. BOONE			STA 985+00 TO STA 1040+00	SCALE AS SHOWN
IN CHARGE A. BOONE				SHEET NO. ### OF ###
DATE 07/20/2011				
REV DATE BY CHK APP	DESCRIPTION			



- NOTES:**
- ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
  - TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

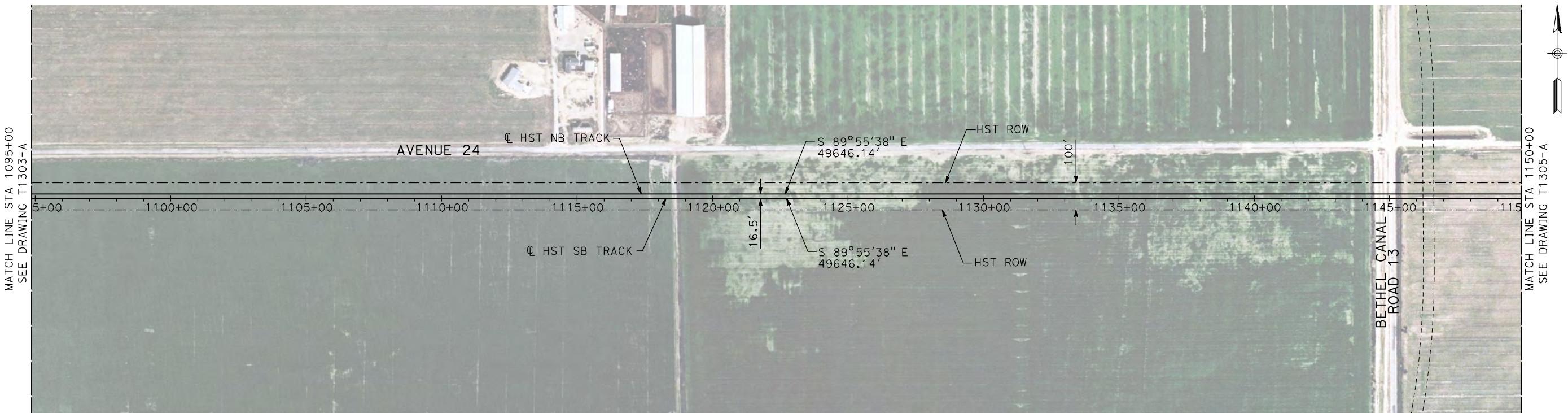
### PLAN



### PROFILE

"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

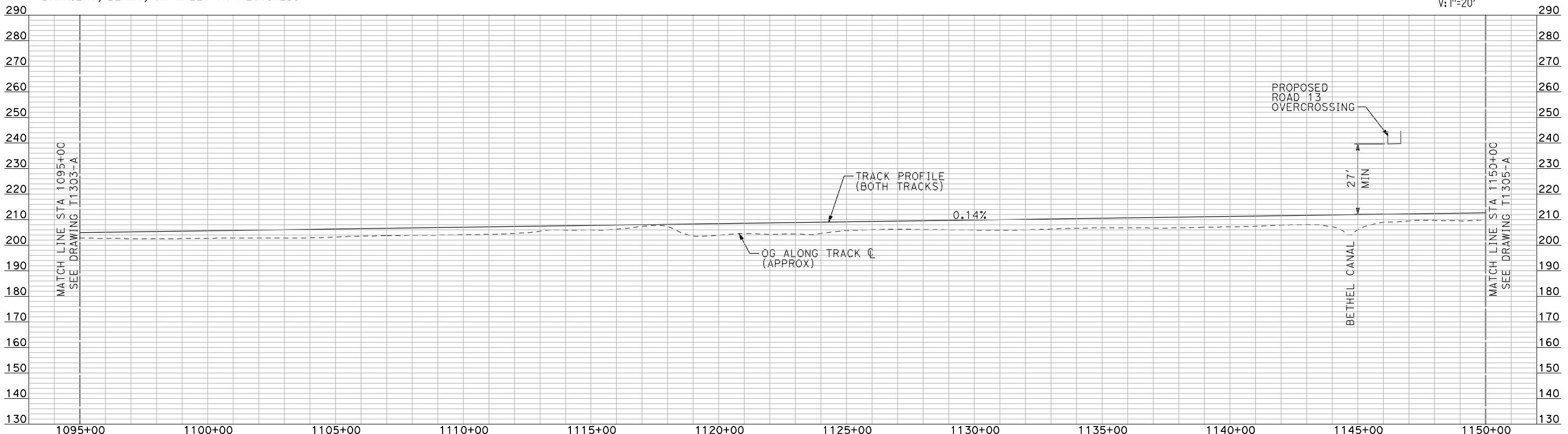
DESIGNED BY A. SHIELDS	RECORD SET 15% DESIGN SUBMITTAL	AECOM Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811	CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO	CONTRACT NO. HSR-007
DRAWN BY H. SULLIVAN	NOT FOR CONSTRUCTION	CH2MHILL	BNSF MAIN LINE AVENUE 24 PLAN AND PROFILE	DRAWING NO. T1303-A
CHECKED BY A. BOONE			STA 1040+00 TO STA 1095+00	SCALE AS SHOWN
IN CHARGE A. BOONE				SHEET NO. ### OF ###
DATE 07/20/2011				
REV	DATE	BY	CHK	APP
				DESCRIPTION



NOTES:

- ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
- TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

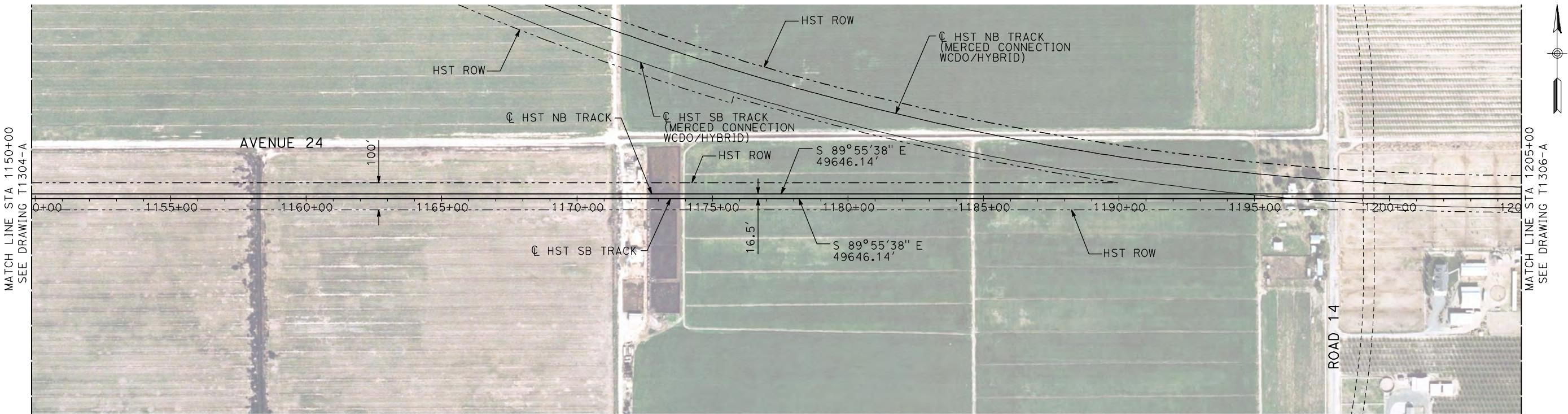
### PLAN



### PROFILE

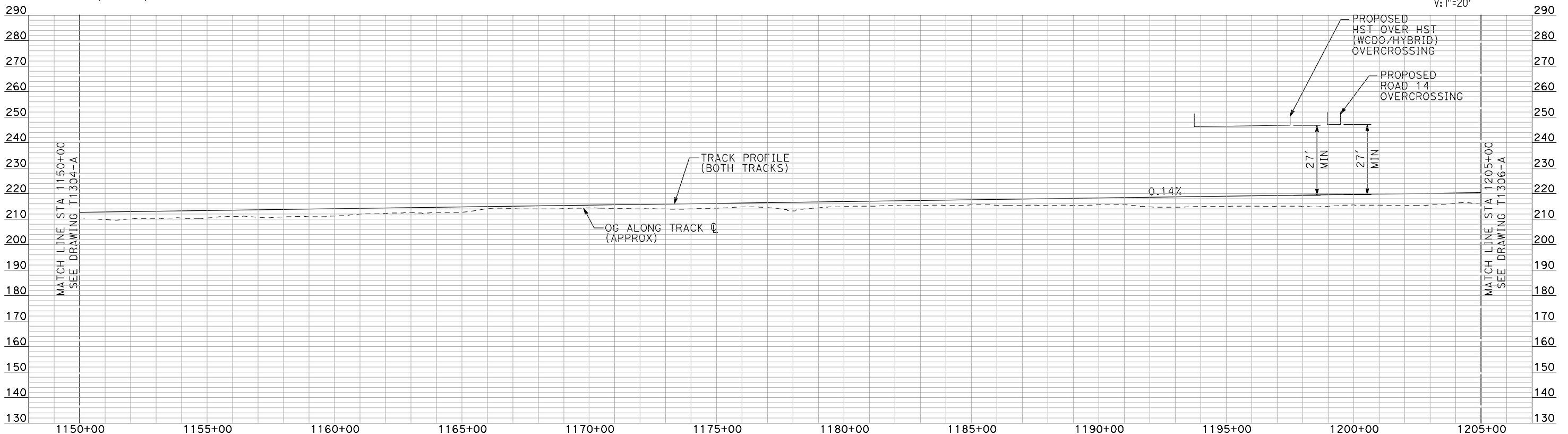
"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

				DESIGNED BY A. SHIELDS	RECORD SET 15% DESIGN SUBMITTAL	<b>AECOM</b> Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811	<b>CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO</b>	CONTRACT NO. HSR06-007
				DRAWN BY H. SULLIVAN				DRAWING NO. T1304-A
				CHECKED BY A. BOONE				SCALE AS SHOWN
				IN CHARGE A. BOONE	NOT FOR CONSTRUCTION	<b>CH2MHILL</b>		SHEET NO. ### OF ###
REV	DATE	BY	CHK	APP	DESCRIPTION	07/20/2011	STA 1095+00 TO STA 1150+00	



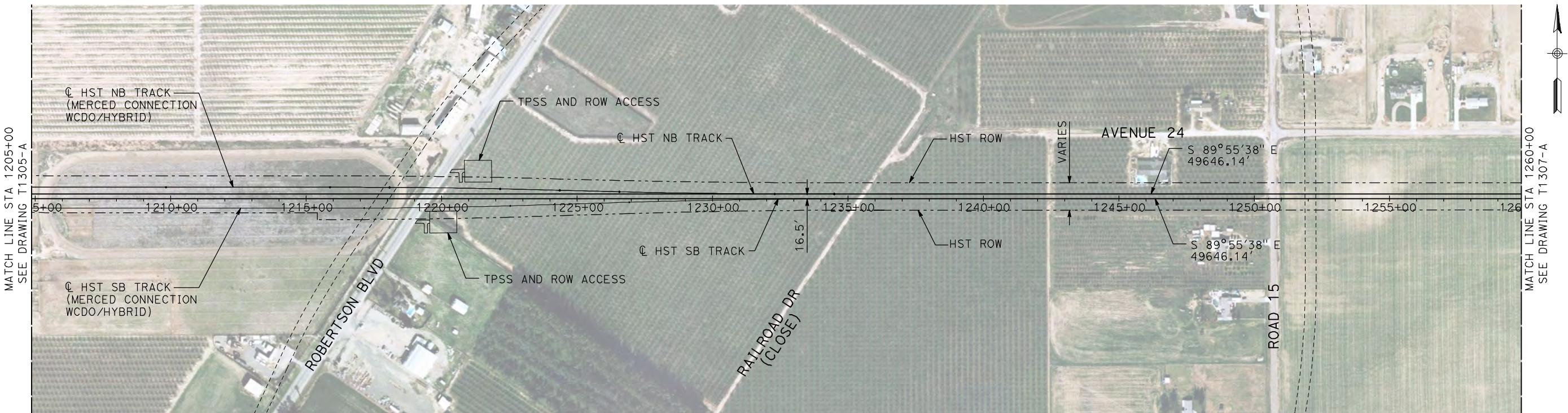
- NOTES:**
- ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
  - TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

### PLAN



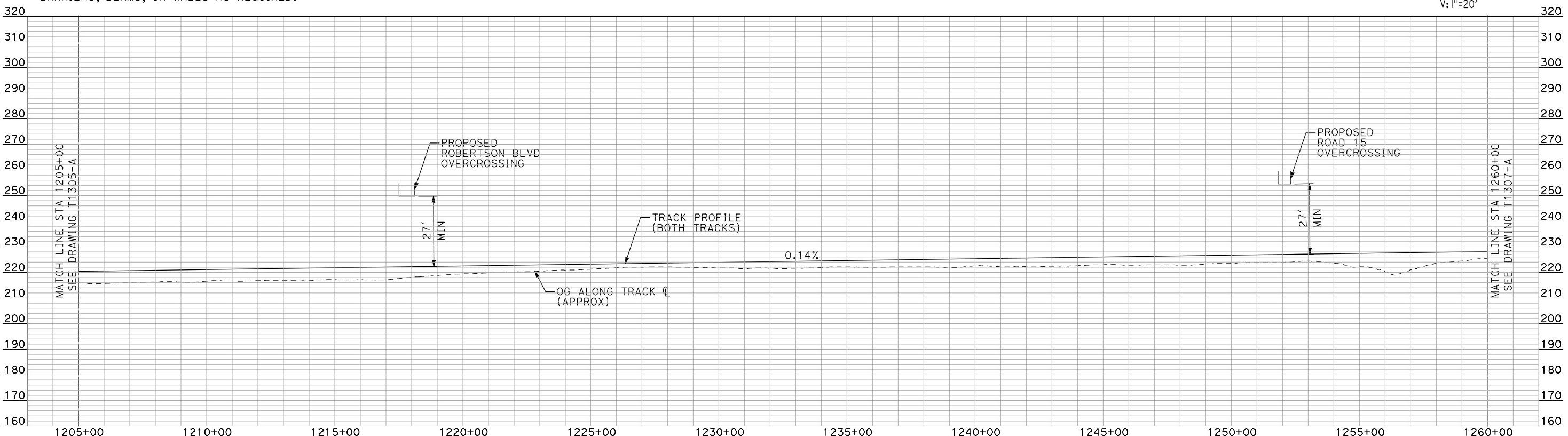
"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION	DESIGNED BY A. SHIELDS	DRAWN BY H. SULLIVAN	CHECKED BY A. BOONE	IN CHARGE A. BOONE	RECORD SET 15% DESIGN SUBMITTAL	NOT FOR CONSTRUCTION	AECOM Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811	CH2MHILL	CALIFORNIA HIGH-SPEED RAIL AUTHORITY	CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO	CONTRACT NO. HSR06-007	DRAWING NO. T1305-A	SCALE AS SHOWN	SHEET NO. ### OF ###
															BNSF MAIN LINE AVENUE 24 PLAN AND PROFILE STA 1150+00 TO STA 1205+00				



- NOTES:**
- ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
  - TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

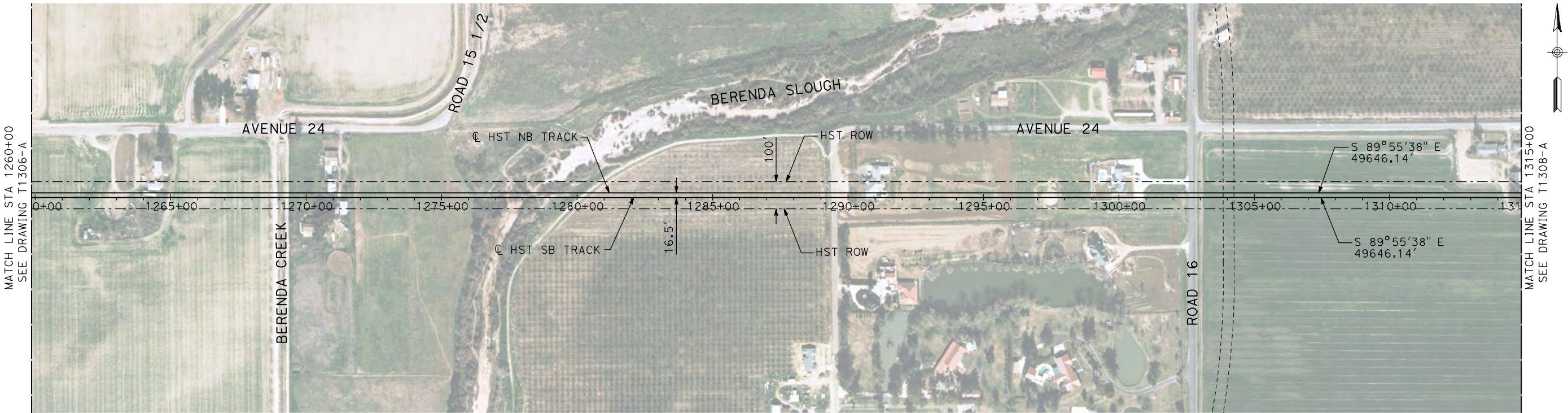
**PLAN**



**PROFILE**

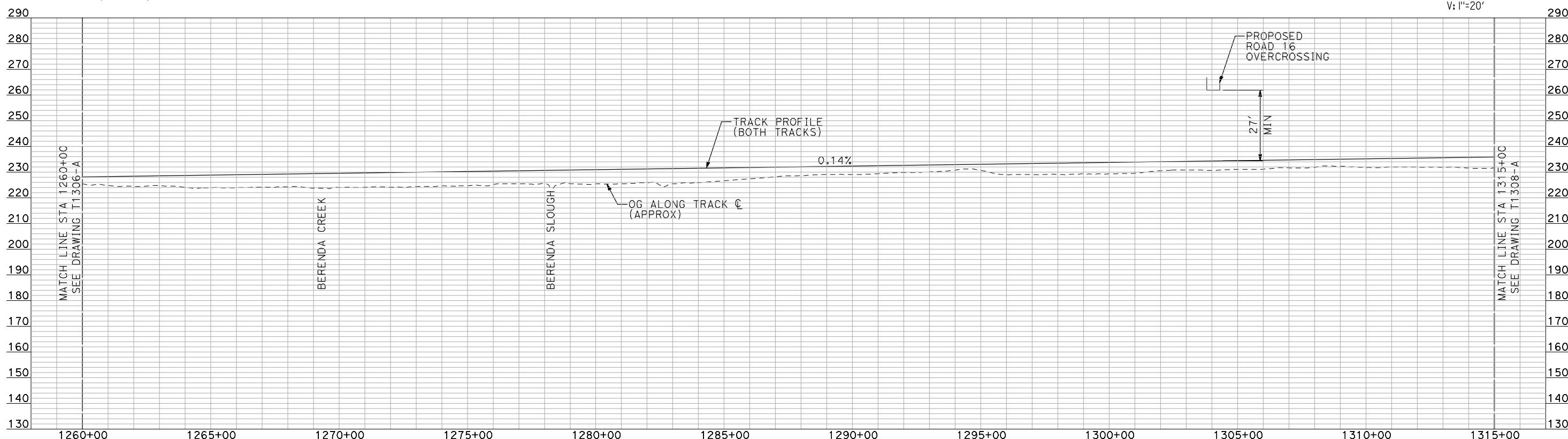
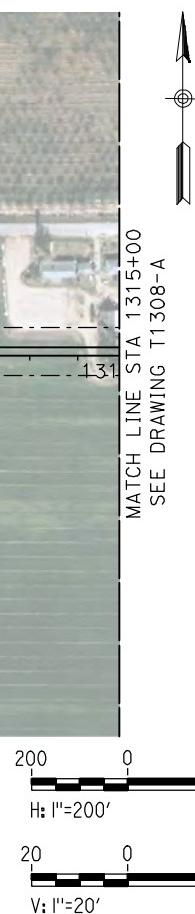
"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

DESIGNED BY A. SHIELDS	RECORD SET 15% DESIGN SUBMITTAL	AECOM Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811	CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO	CONTRACT NO. HSR06-007
DRAWN BY H. SULLIVAN	NOT FOR CONSTRUCTION	CH2MHILL	BNSF MAIN LINE AVENUE 24 PLAN AND PROFILE	DRAWING NO. T1306-A
CHECKED BY A. BOONE			STA 1205+00 TO STA 1260+00	SCALE AS SHOWN
IN CHARGE A. BOONE				SHEET NO. ### OF ###
DATE 07/20/2011				
REV DATE BY CHK APP	DESCRIPTION			



NOTES:  
 1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES  
 BASED ON RECORD DRAWINGS AND ARE SHOWN FOR  
 INFORMATIONAL PURPOSES ONLY.  
 2. TRACKS CLOSER THAN 102 FT TO THE NEAREST  
 EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY  
 BARRIERS, BERMS, OR WALLS AS REQUIRED.

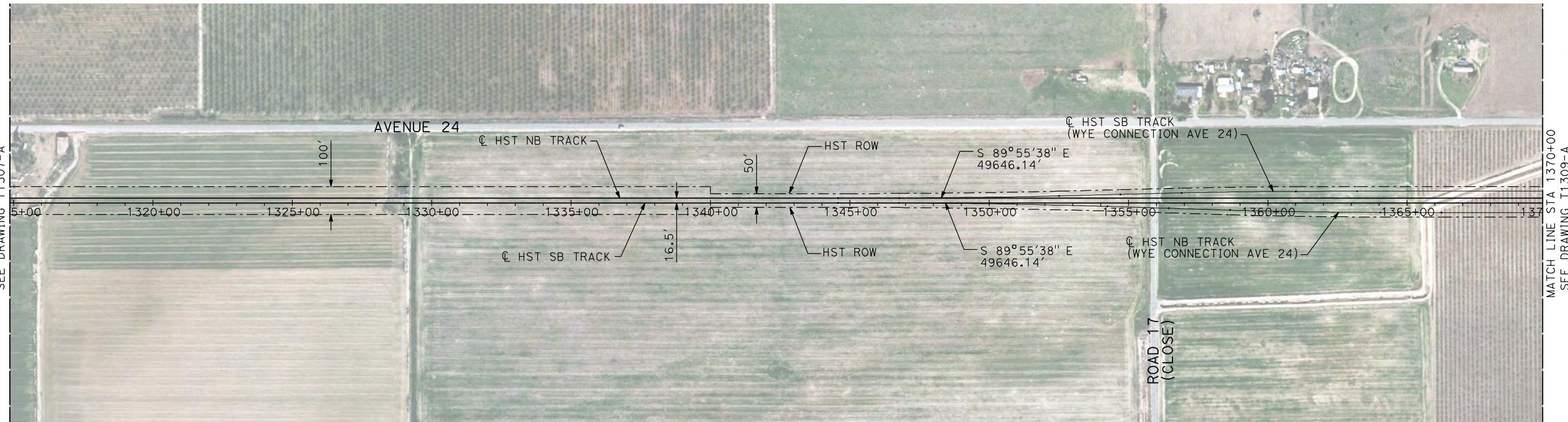
### PLAN



### PROFILE

"SEE T3000-T3017 DRAWINGS FOR  
 TYPICAL SECTION LIMITS AND DETAILS"

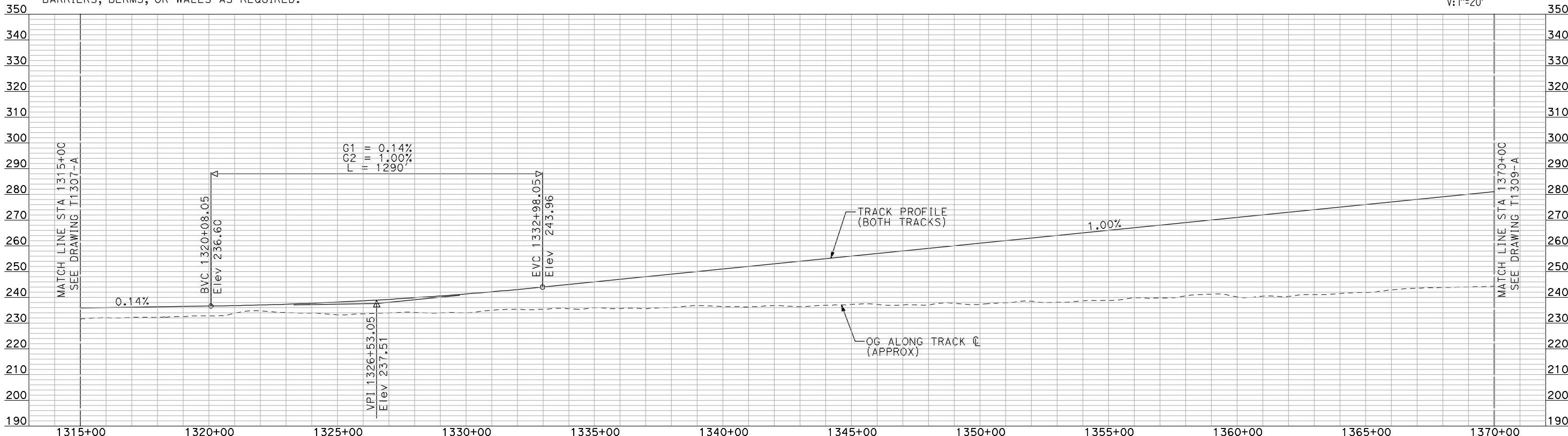
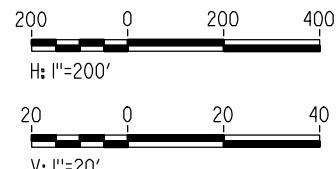
					DESIGNED BY A. SHIELDS	RECORD SET 15% DESIGN SUBMITTAL	<b>AECOM</b> Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811	<b>CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO</b>	CONTRACT NO. HSR06-007
					DRAWN BY H. SULLIVAN	NOT FOR CONSTRUCTION	<b>CH2MHILL</b>	BNSF MAIN LINE AVENUE 24 PLAN AND PROFILE	DRAWING NO. T1307-A
					CHECKED BY A. BOONE			STA 1260+00 TO STA 1315+00	SCALE AS SHOWN
					IN CHARGE A. BOONE				SHEET NO. ### OF ###
REV	DATE	BY	CHK	APP	DATE 07/20/2011	DESCRIPTION			



**NOTES:**

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

## PLAN



"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

220

100

**RECORD SET  
15% DESIGN  
SUBMITTAL**

**AECOM**  
Technical Services, Inc.  
2020 L Street, Suite 3  
Sacramento, CA 95811  
**CH2MHILL**

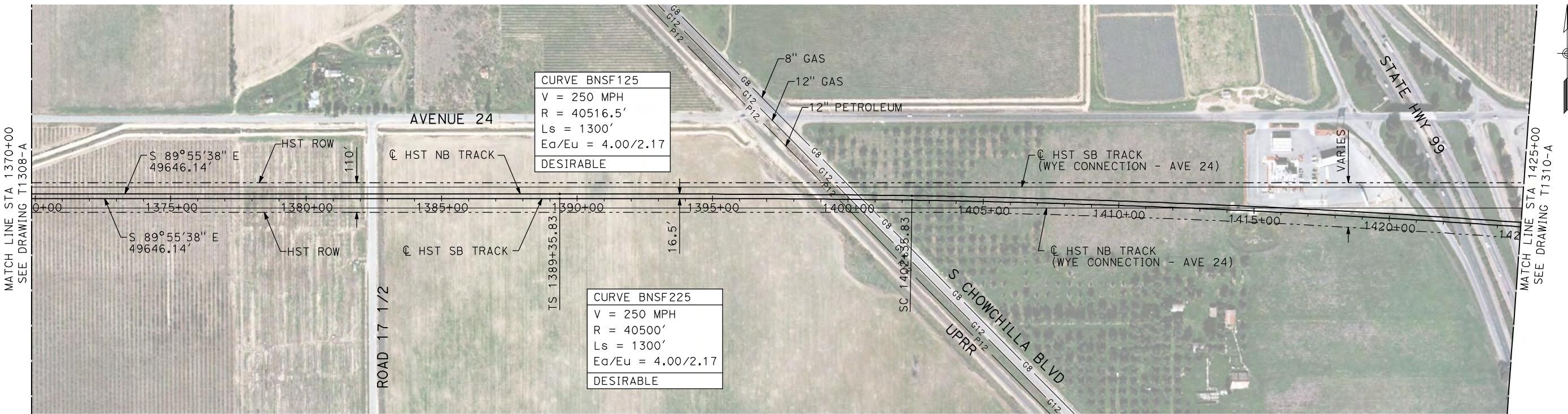


CALIFORNIA  
HIGH-SPEED RAIL AUTHORITY

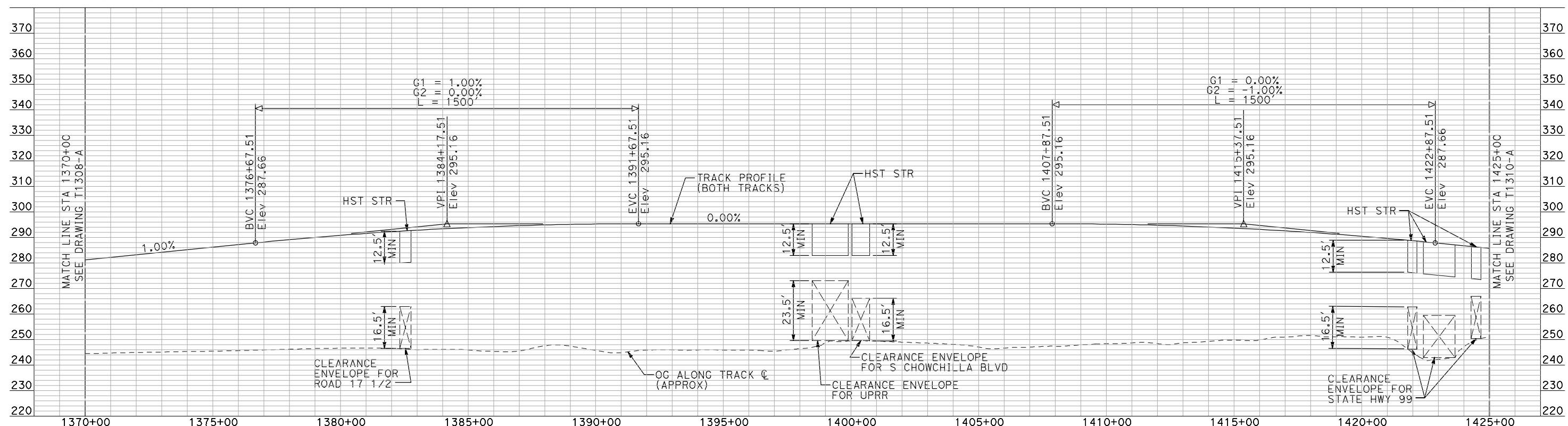
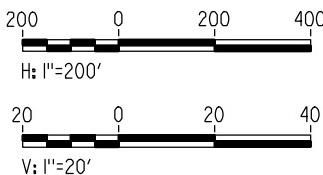
# **CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO**

BNSF MAIN LINE  
AVENUE 24  
PLAN AND PROFILE  
STA 1315+00 TO STA 1370+00

CONTRACT NO.	HSR06-007
DRAWING NO.	T1308-A
SCALE	AS SHOWN
SHEET NO.	### OF ###

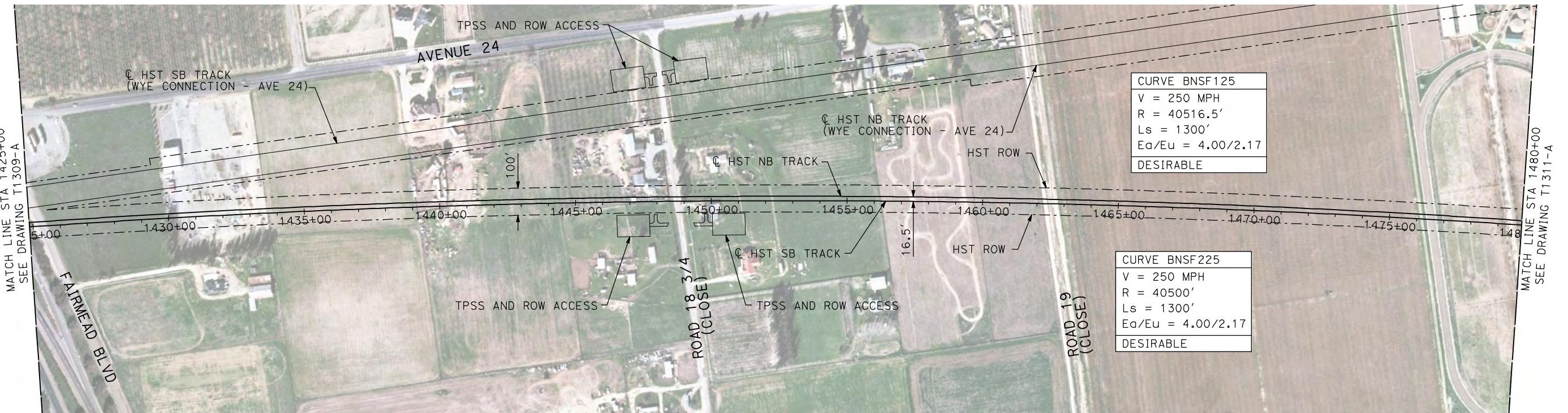


**PLAN**



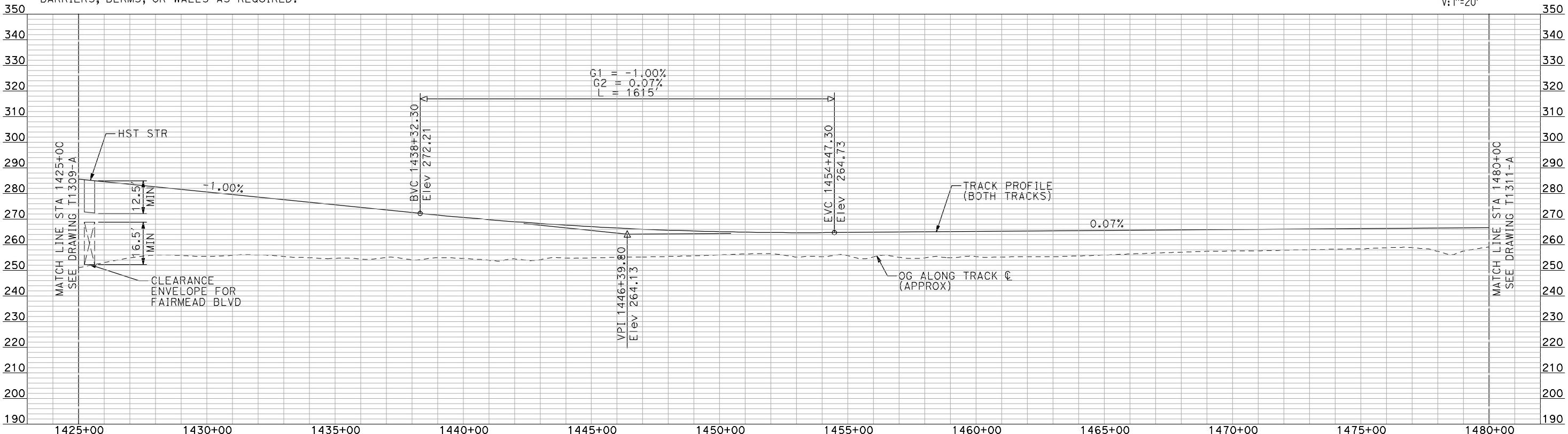
**PROFILE**

"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"



**PLAN**

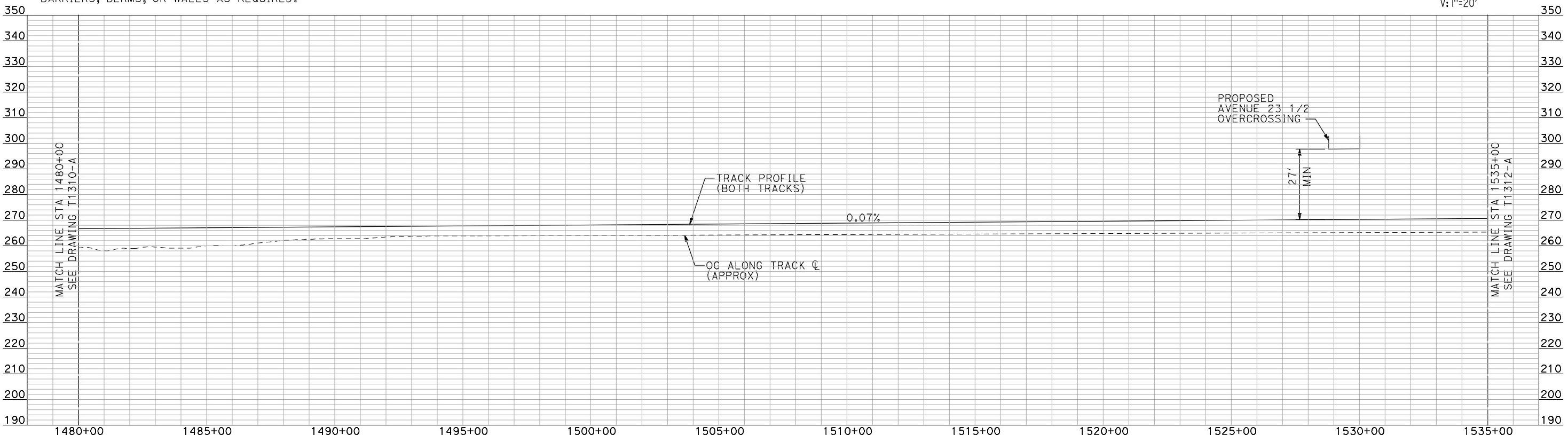
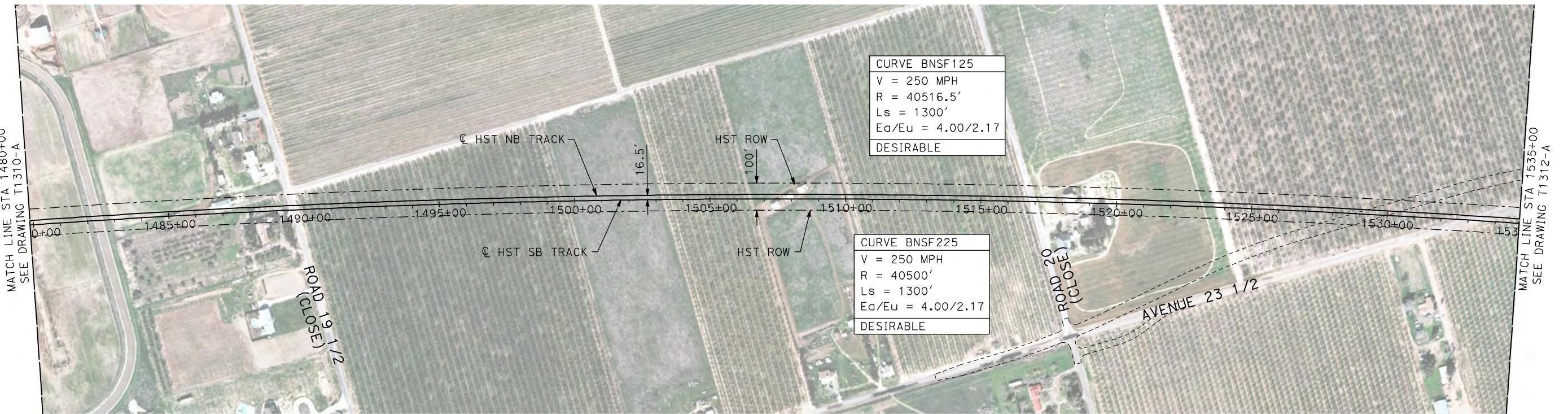
- NOTES:
- ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
  - TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



**PROFILE**

"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

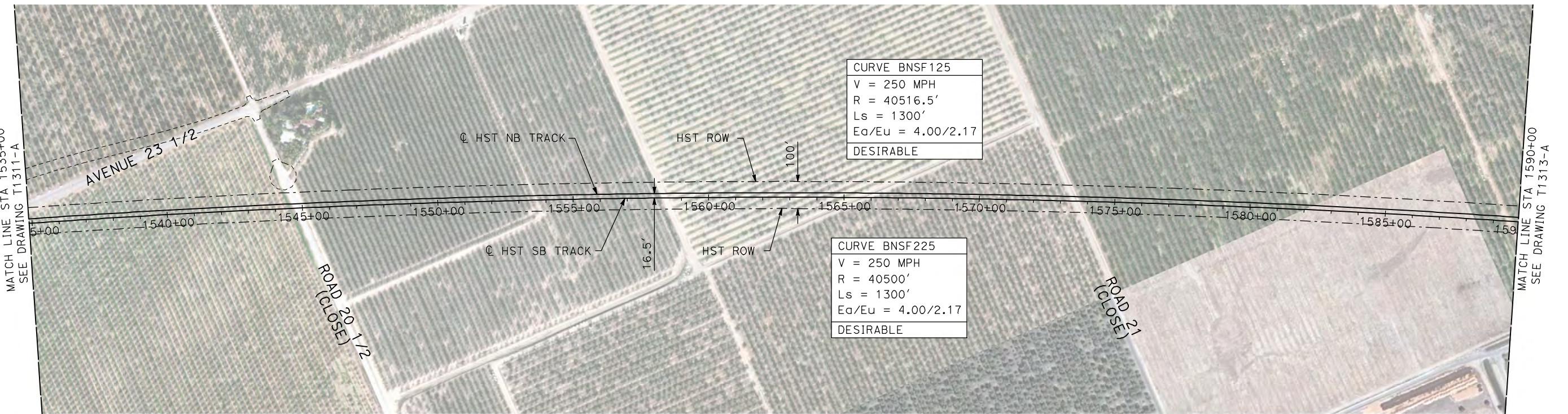
DESIGNED BY A. SHIELDS	RECORD SET 15% DESIGN SUBMITTAL	AECOM Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811	CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO	CONTRACT NO. HSR06-007
DRAWN BY H. SULLIVAN	NOT FOR CONSTRUCTION	CH2MHILL	BNSF MAIN LINE AVENUE 24 PLAN AND PROFILE	DRAWING NO. T1310-A
CHECKED BY A. BOONE			STA 1425+00 TO STA 1480+00	SCALE AS SHOWN
IN CHARGE A. BOONE				SHEET NO. ### OF ###
DATE 07/20/2011				
REV DATE BY CHK APP	DESCRIPTION			



**PROFILE**

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

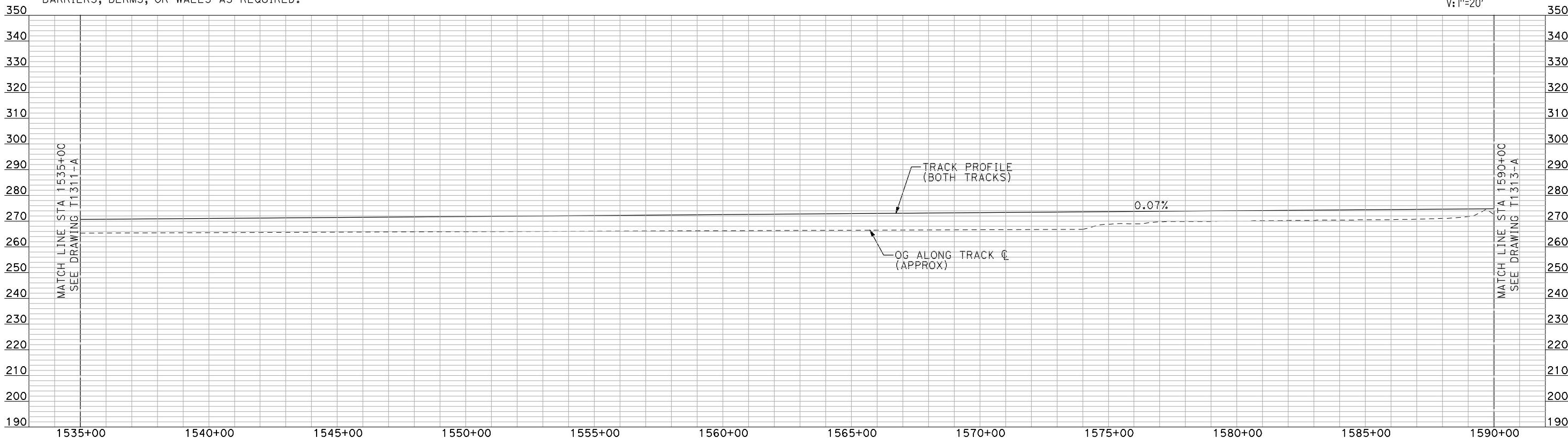
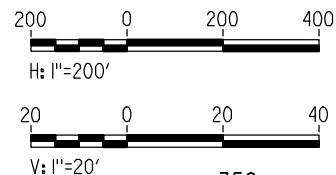
DESIGNED BY A. SHIELDS	RECORD SET 15% DESIGN SUBMITTAL	AECOM Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811	CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO	CONTRACT NO. HSR-007
DRAWN BY H. SULLIVAN	NOT FOR CONSTRUCTION	CH2MHILL	BNSF MAIN LINE AVENUE 24 PLAN AND PROFILE	DRAWING NO. T1311-A
CHECKED BY A. BOONE			STA 1480+00 TO STA 1535+00	SCALE AS SHOWN
IN CHARGE A. BOONE				SHEET NO. ### OF ###
DATE 07/20/2011				
REV DATE BY CHK APP	DESCRIPTION			



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- NOTES:**
- ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
  - TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

### PLAN



### PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

macdade

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. SHIELDS  
DRAWN BY  
H. SULLIVAN  
CHECKED BY  
A. BOONE  
IN CHARGE  
A. BOONE  
DATE  
07/20/2011

RECORD SET  
15% DESIGN  
SUBMITTAL  
**NOT FOR  
CONSTRUCTION**

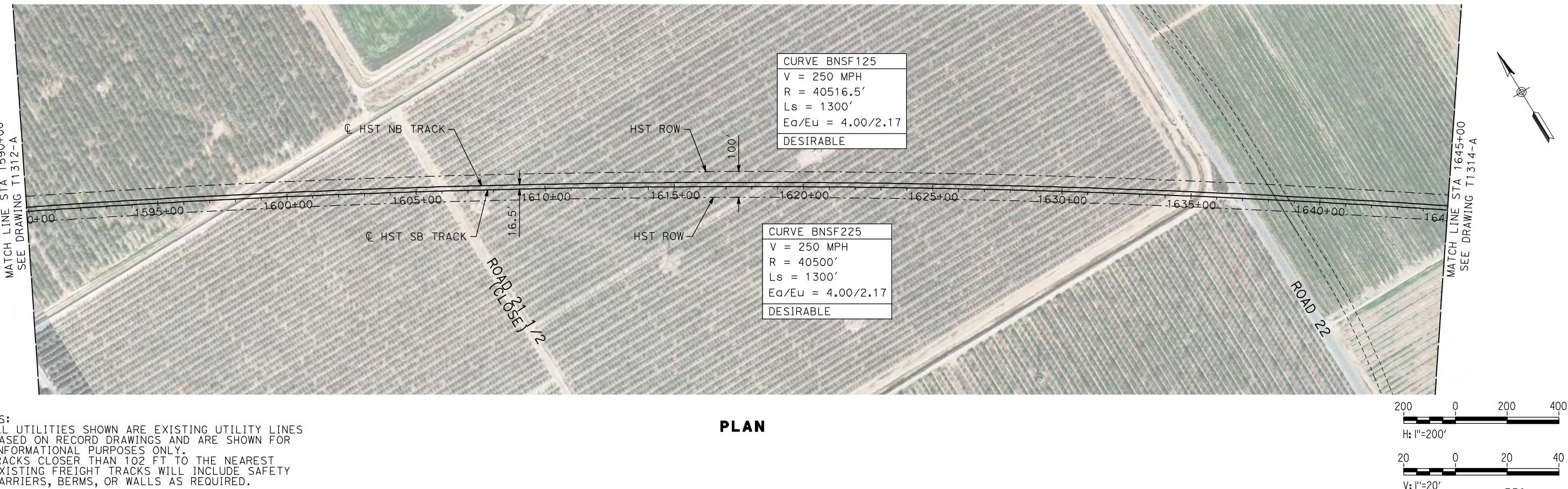
**AECOM**  
Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811  
**CH2MHILL**



### CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO

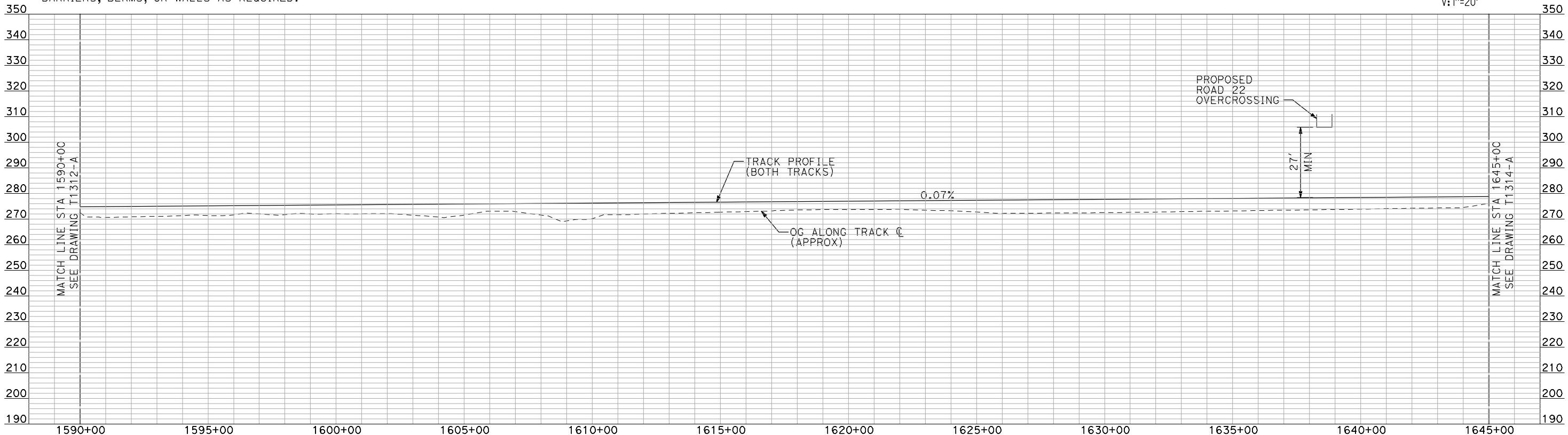
BNSF MAIN LINE  
AVENUE 24  
PLAN AND PROFILE  
STA 1535+00 TO STA 1590+00

CONTRACT NO.  
HSR-007  
DRAWING NO.  
T1312-A  
SCALE  
AS SHOWN  
SHEET NO.  
### OF ###



- NOTES:**
- ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
  - TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

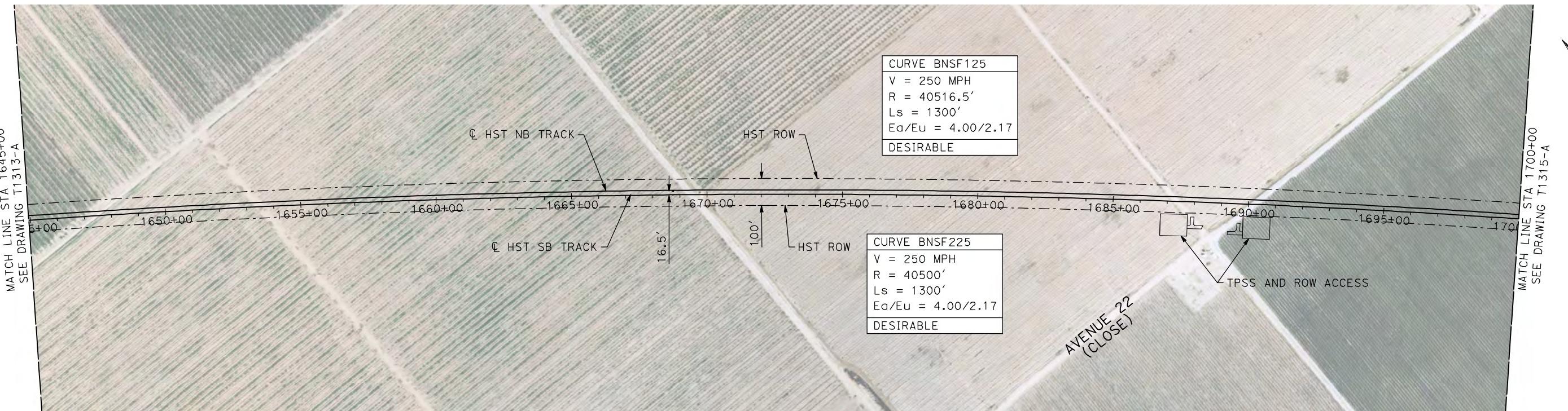
**PLAN**



**PROFILE**

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

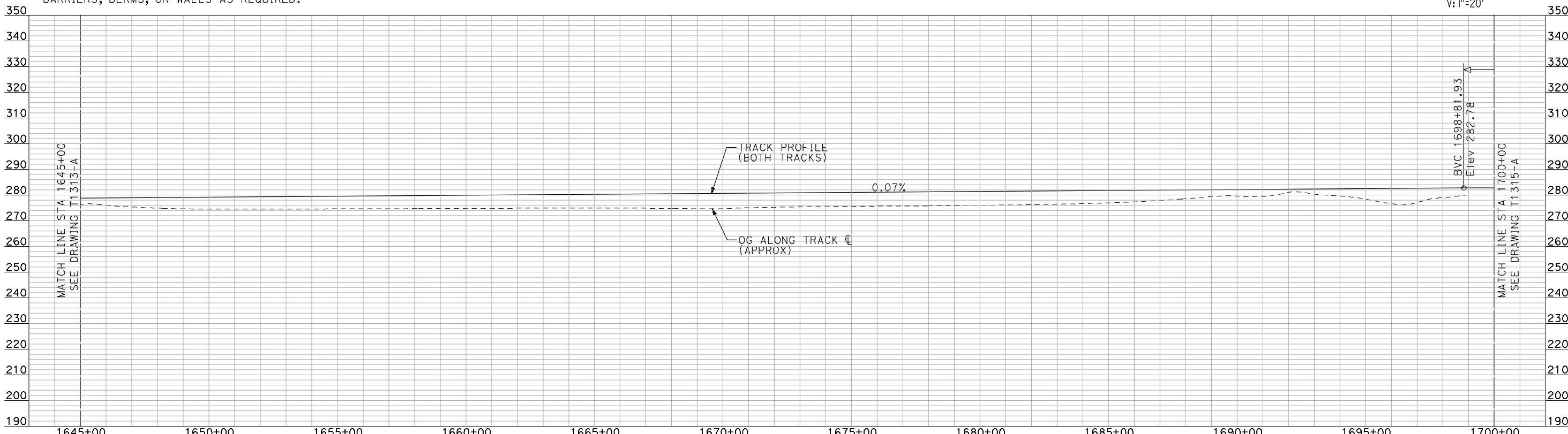
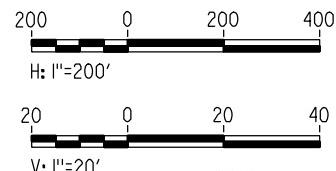
REV	DATE	BY	CHK	APP	DESCRIPTION	DESIGNED BY A. SHIELDS DRAWN BY H. SULLIVAN CHECKED BY A. BOONE IN CHARGE A. BOONE DATE 07/20/2011	RECORD SET 15% DESIGN SUBMITTAL  NOT FOR CONSTRUCTION	AECOM Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811  CH2MHILL	CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO  BNSF MAIN LINE AVENUE 24 PLAN AND PROFILE STA 1590+00 TO STA 1645+00	CONTRACT NO. HSR06-007  DRAWING NO. T1313-A  SCALE AS SHOWN  SHEET NO. ### OF ###
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**NOTES:**

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2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

**RECORD SET  
15% DESIGN  
SUBMITTA**

**AECOM**  
Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811  
**CH2MHILL**

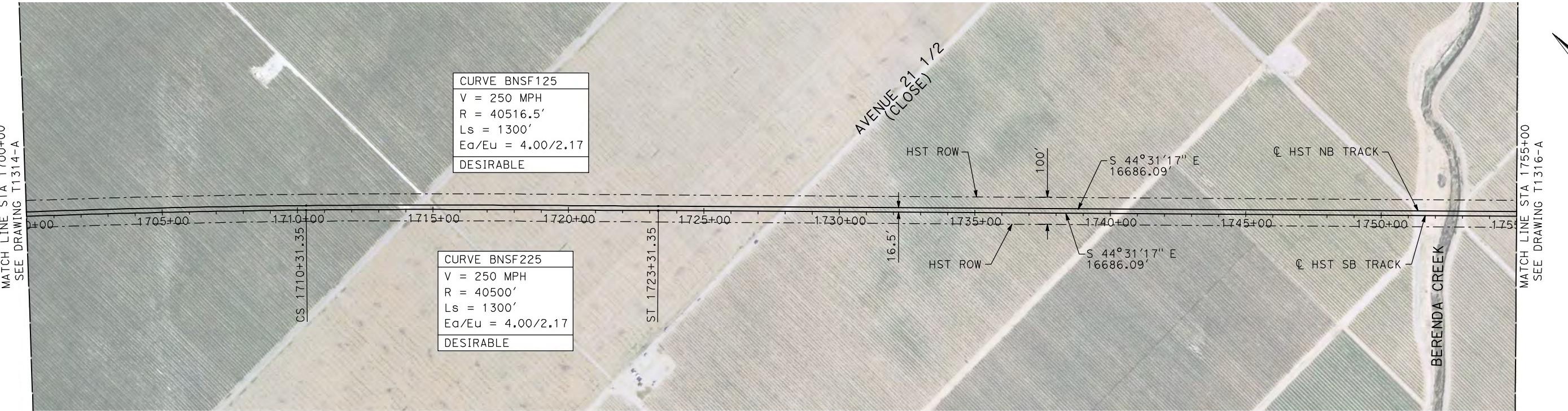


# CALIFORNIA HIGH-SPEED RAIL AUTHORITY

# **CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO**

**BNSF MAIN LINE  
AVENUE 24  
PLAN AND PROFILE**  
**STA 1645+00 TO STA 1700+00**

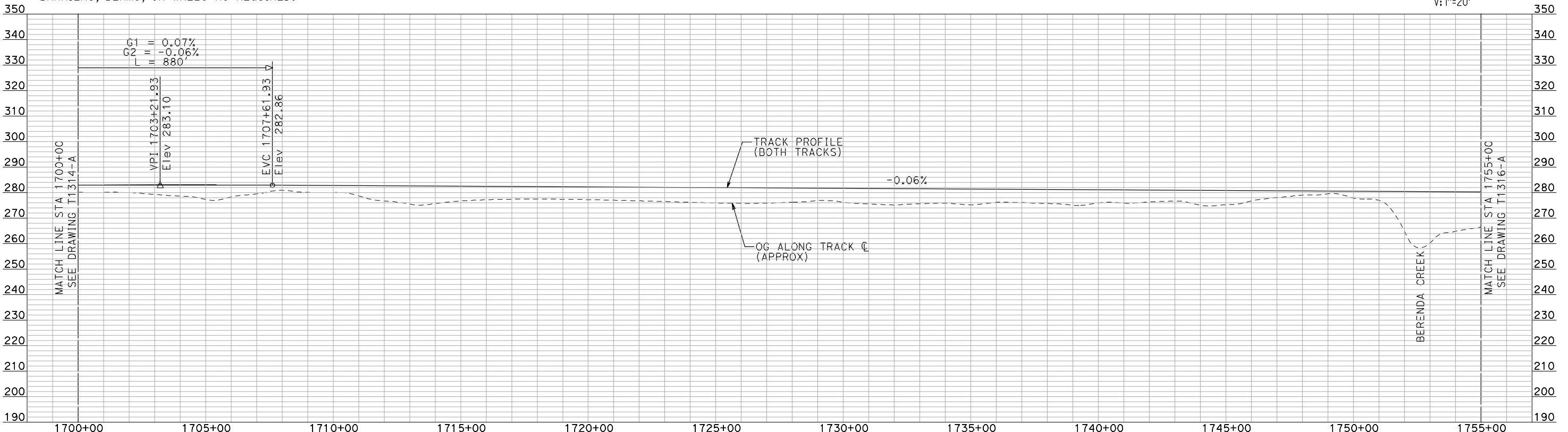
CONTRACT NO.  
HSR06-007  
DRAWING NO.  
T1314-A  
SCALE  
AS SHOWN  
SHEET NO.  
### OF ###



**NOTES:**

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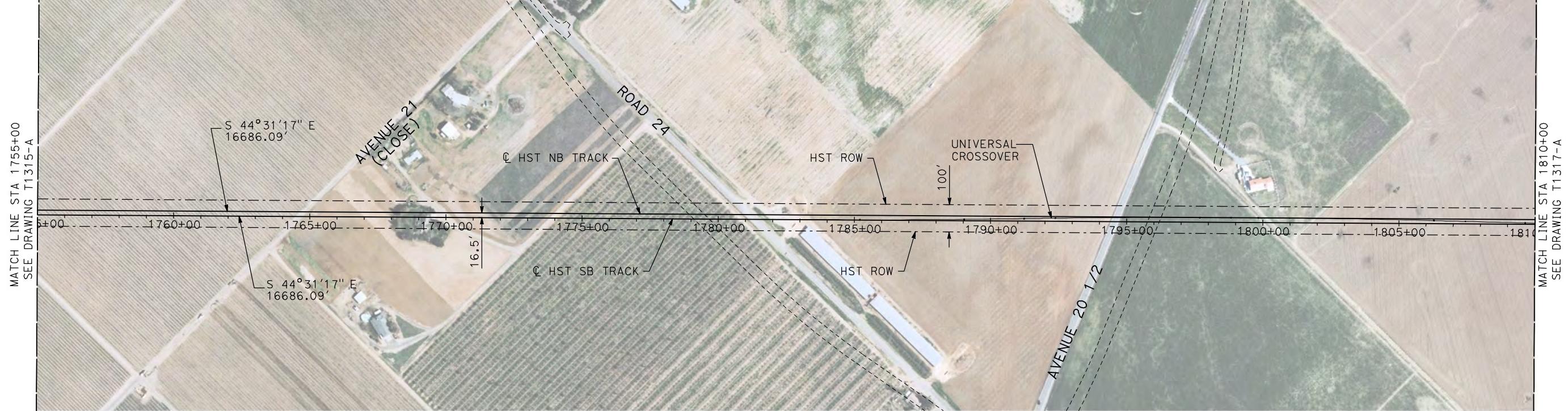
### PLAN



### PROFILE

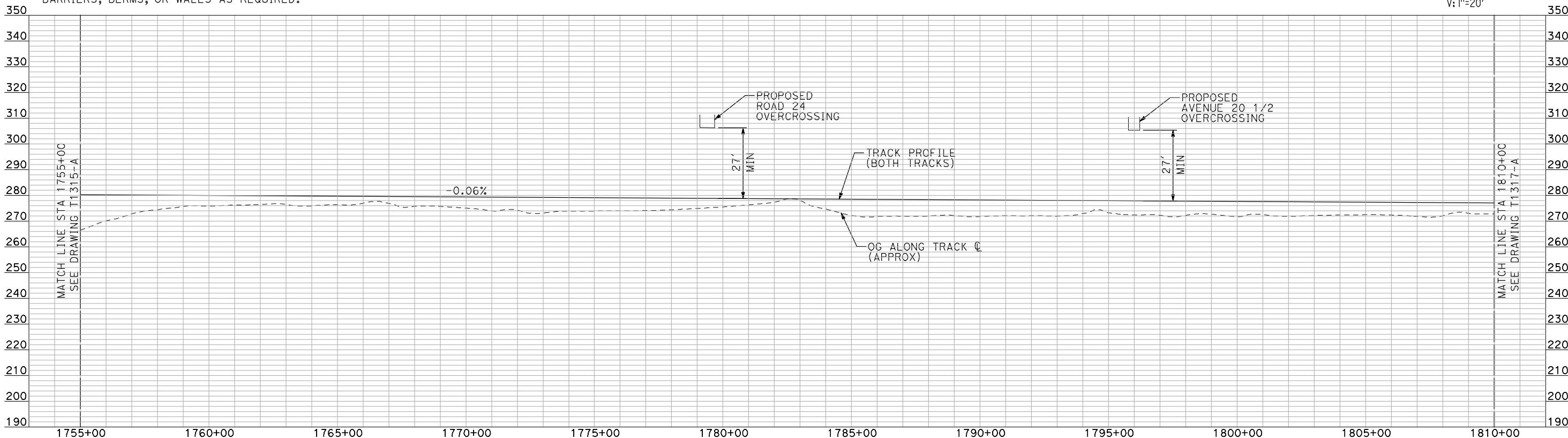
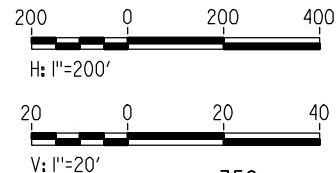
"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

DESIGNED BY A. SHIELDS	RECORD SET 15% DESIGN SUBMITTAL	AECOM Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811	CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO	CONTRACT NO. HSR06-007
DRAWN BY H. SULLIVAN	NOT FOR CONSTRUCTION	CH2MHILL	BNSF MAIN LINE AVENUE 24 PLAN AND PROFILE	DRAWING NO. T1315-A
CHECKED BY A. BOONE			STA 1700+00 TO STA 1755+00	SCALE AS SHOWN
IN CHARGE A. BOONE				SHEET NO. ### OF ###
DATE 07/20/2011				
REV DATE BY CHK APP	DESCRIPTION			



**PLAN**

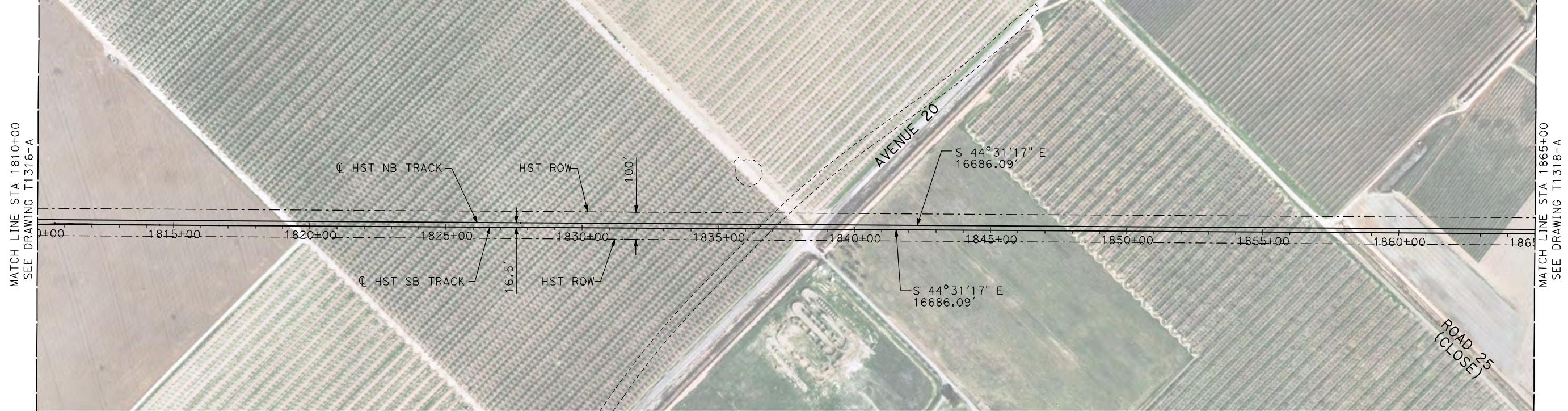
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**PROFILE**

"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

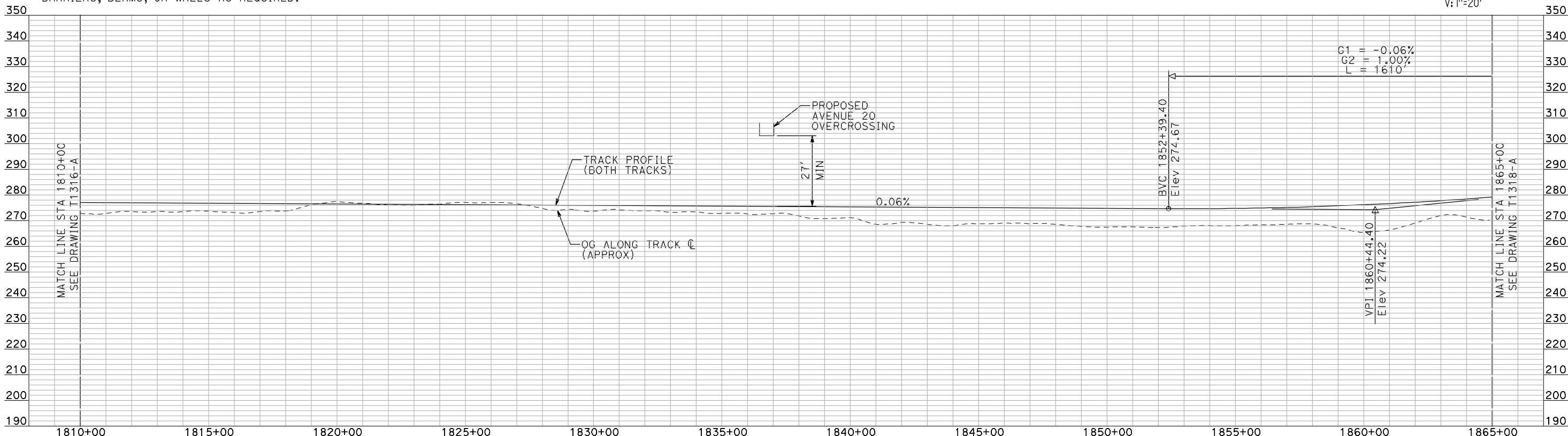
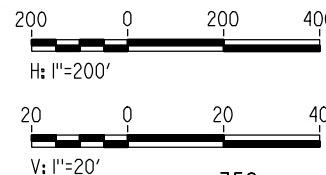
DESIGNED BY A. SHIELDS	RECORD SET 15% DESIGN SUBMITTAL	AECOM Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811	CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO	CONTRACT NO. HSR06-007
DRAWN BY H. SULLIVAN	NOT FOR CONSTRUCTION	CH2MHILL	BNSF MAIN LINE AVENUE 24 PLAN AND PROFILE	DRAWING NO. T1316-A
CHECKED BY A. BOONE			STA 1755+00 TO STA 1810+00	SCALE AS SHOWN
IN CHARGE A. BOONE				SHEET NO. ### OF ###
DATE 07/20/2011				
REV DATE BY CHK APP	DESCRIPTION			



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- TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

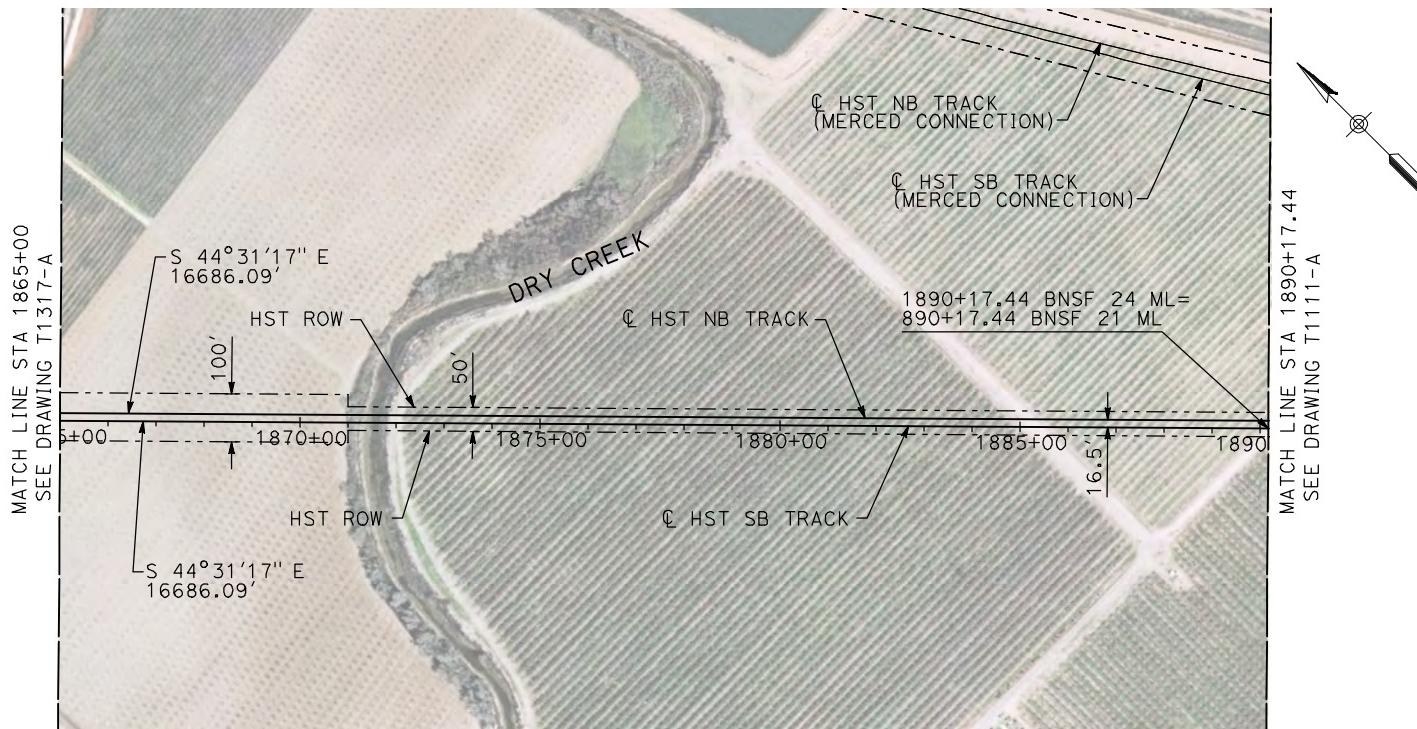
### PLAN



### PROFILE

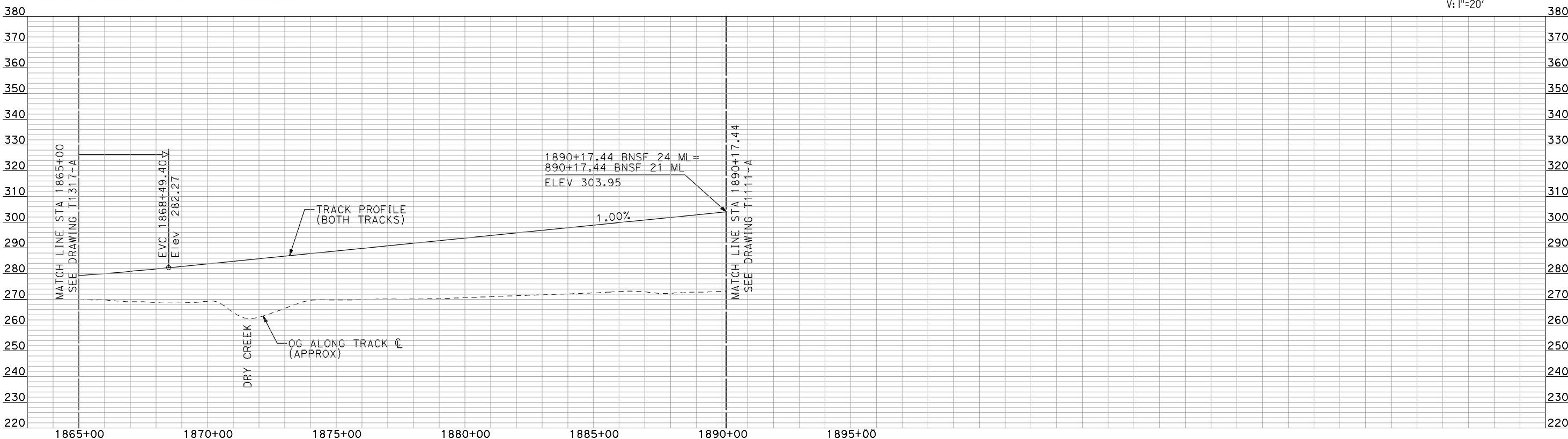
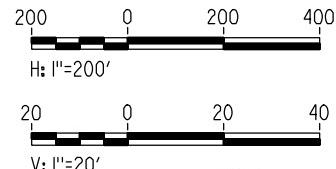
"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

DESIGNED BY A. SHIELDS	RECORD SET 15% DESIGN SUBMITTAL	AECOM Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811	CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO	CONTRACT NO. HSR06-007
DRAWN BY H. SULLIVAN	NOT FOR CONSTRUCTION	CH2MHILL	BNSF MAIN LINE AVENUE 24 PLAN AND PROFILE	DRAWING NO. T1317-A
CHECKED BY A. BOONE			STA 1810+00 TO STA 1865+00	SCALE AS SHOWN
IN CHARGE A. BOONE				SHEET NO. ### OF ###
DATE 07/20/2011				
REV DATE BY CHK APP	DESCRIPTION			



- NOTES:
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  - TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

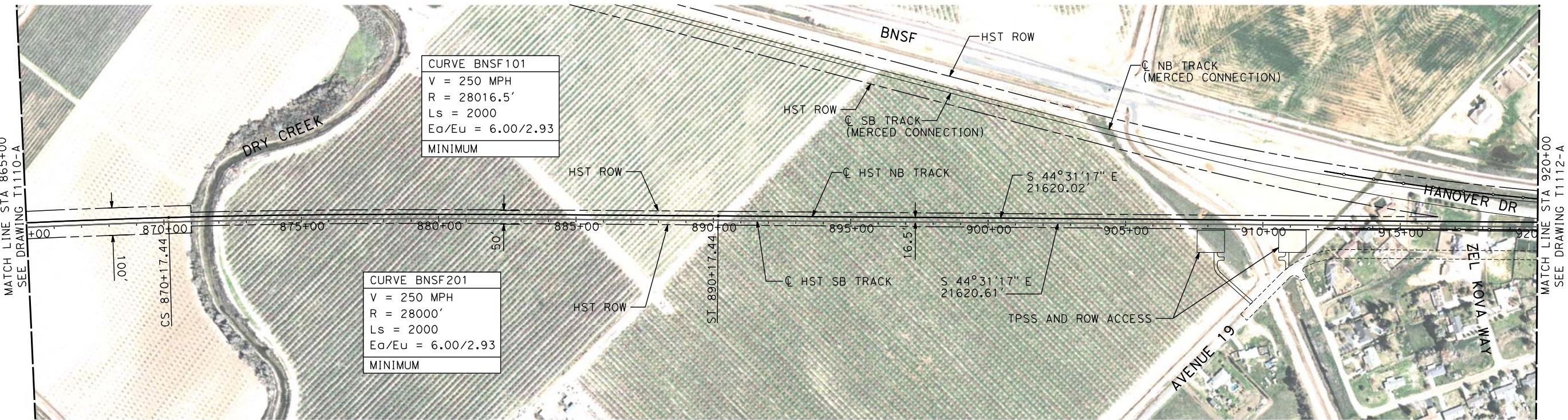
**PLAN**



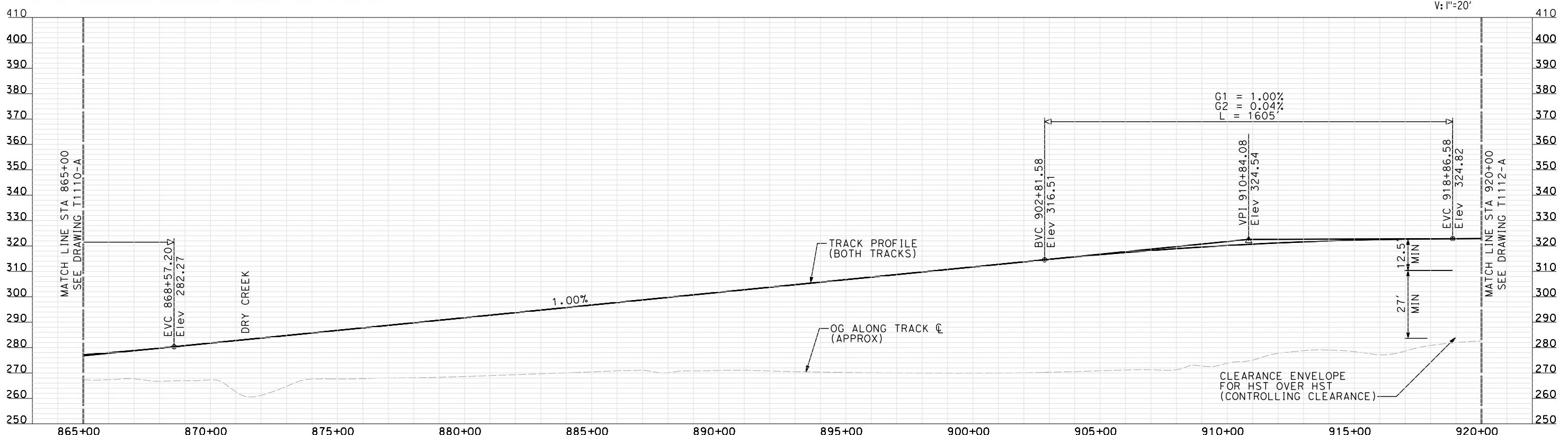
**PROFILE**

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

DESIGNED BY A. SHIELDS	RECORD SET 15% DESIGN SUBMITTAL	AECOM Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811	CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO	CONTRACT NO. HSR06-007
DRAWN BY H. SULLIVAN	NOT FOR CONSTRUCTION	CH2MHILL	BNSF MAIN LINE AVENUE 24 PLAN AND PROFILE	DRAWING NO. T1318-A
CHECKED BY A. BOONE			STA 1865+00 TO STA 1890+17.44	SCALE AS SHOWN
IN CHARGE A. BOONE				SHEET NO. ### OF ###
DATE 07/20/2011				
REV DATE BY CHK APP	DESCRIPTION			



**PLAN**



**PROFILE**

"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION
1	12/12/2011	AS			TRACK REALIGNMENT

DESIGNED BY  
A. SHIELDS  
DRAWN BY  
H. SULLIVAN  
CHECKED BY  
A. BOONE  
IN CHARGE  
A. BOONE  
DATE  
07/27/2011

RECORD SET  
15% DESIGN  
SUBMITTAL  
**NOT FOR  
CONSTRUCTION**

**AECOM**  
Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811  
**CH2MHILL**

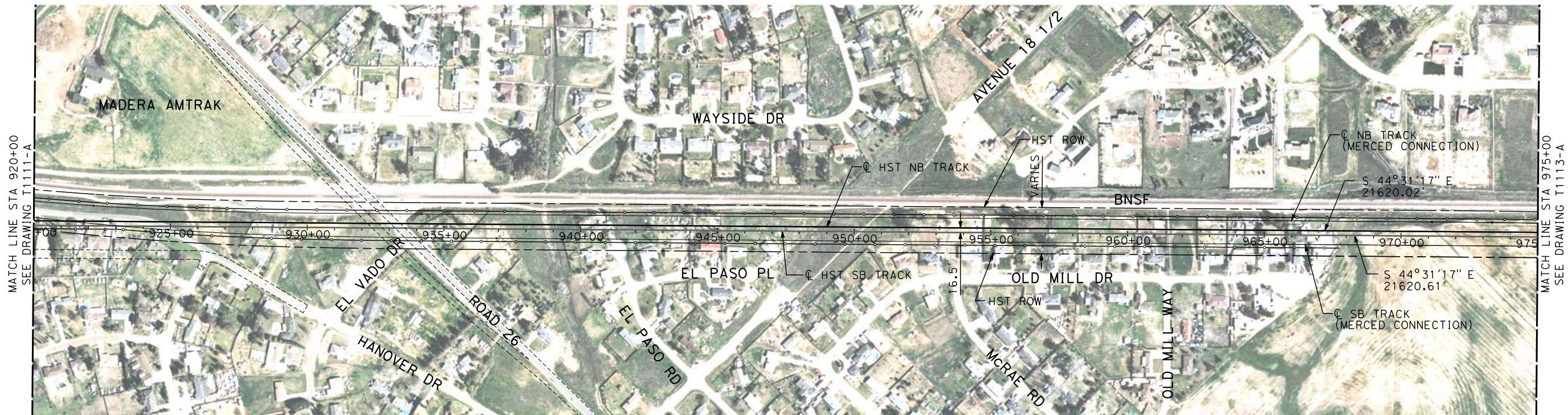


**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
MERCED TO FRESNO**

BNSF MAIN LINE

PLAN AND PROFILE  
STA 865+00 TO STA 920+00

CONTRACT NO.  
HSR-007  
DRAWING NO.  
T1111-A  
SCALE  
AS SHOWN  
SHEET NO.  
### OF ###



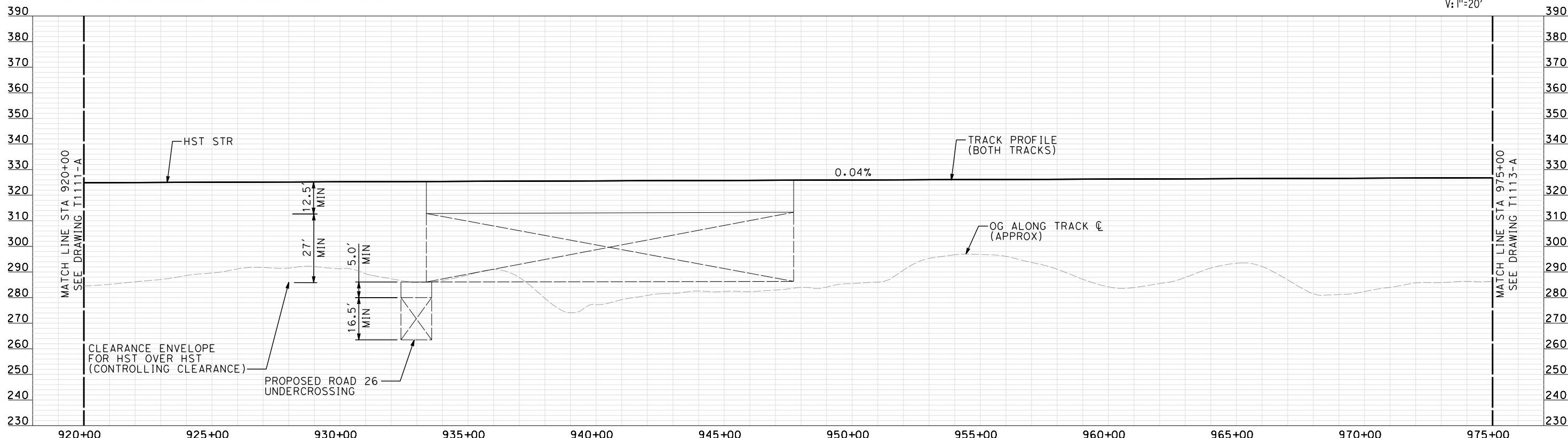
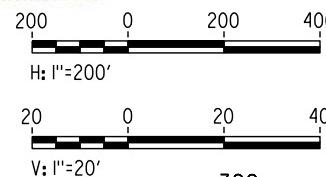
**NOTES:**

- ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
- TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.
- FOR CONTROLLING CLEARANCE ENVELOPE SEE T-1112-A.

**PLAN**

MATCH LINE STA 920+00  
SEE DRAWING T1111-A

MATCH LINE STA 975+00  
SEE DRAWING T1113-A



"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

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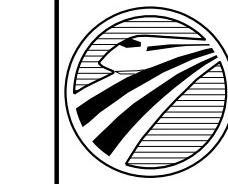
1 12/12/2011 AS

TRACK REALIGNMENT

DESCRIPTION

DESIGNED BY A. SHIELDS
DRAWN BY H. SULLIVAN
CHECKED BY A. BOONE
IN CHARGE A. BOONE
DATE 07/27/2011

**AECOM**  
Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811  
**CH2MHILL**



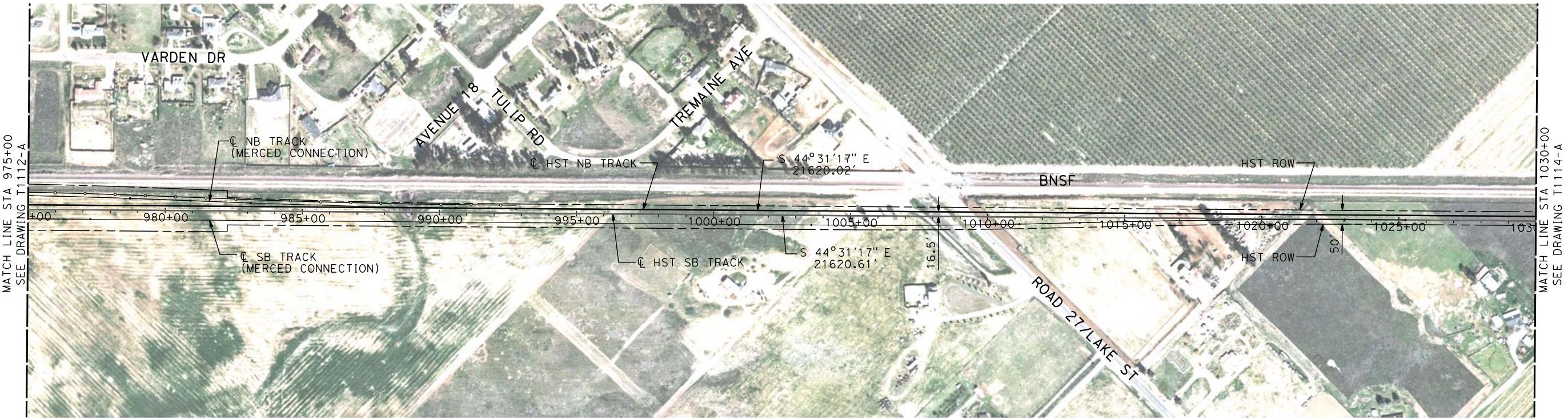
CALIFORNIA  
HIGH-SPEED RAIL AUTHORITY

**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
MERCED TO FRESNO**

BNSF MAIN LINE

PLAN AND PROFILE  
STA 920+00 TO STA 975+00

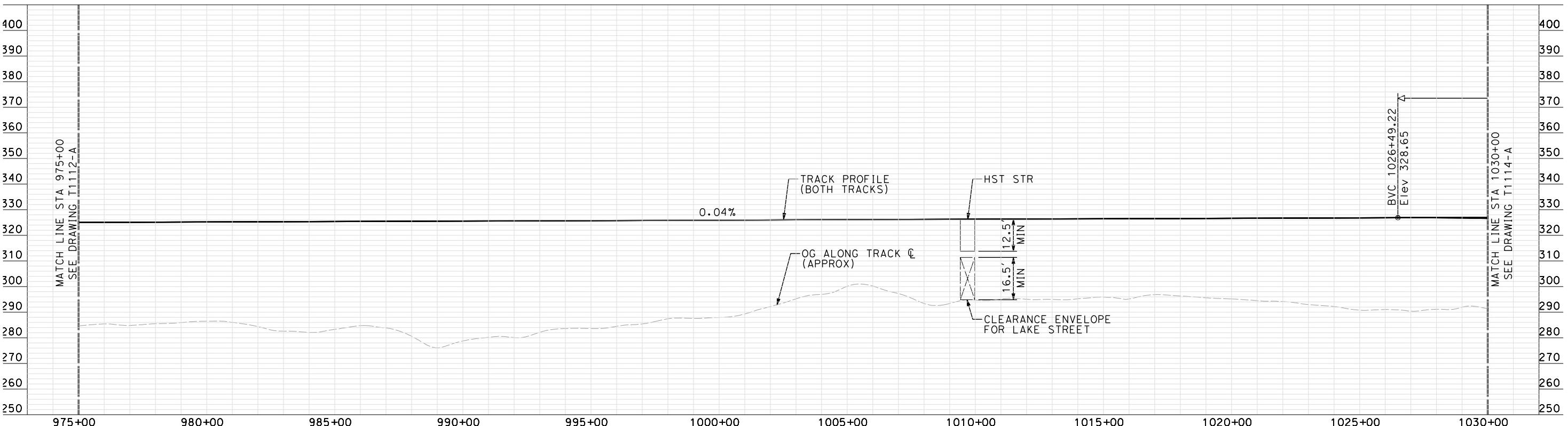
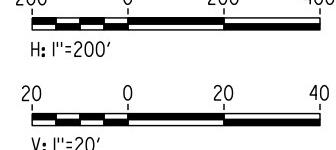
CONTRACT NO. HSR06-007
DRAWING NO. T1112-A
SCALE AS SHOWN
SHEET NO. ### OF ###



NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
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3. FOR CONTROLLING CLEARANCE ENVELOPE, SEE T-1112-A.

### PLAN



"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

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shielded

REV DATE BY CHK APP

1 12/12/2011 AS

TRACK REALIGNMENT

DESCRIPTION

DESIGNED BY  
A. SHIELDS  
DRAWN BY  
H. SULLIVAN  
CHECKED BY  
A. BOONE  
IN CHARGE  
A. BOONE  
DATE  
07/27/2011

RECORD SET  
15% DESIGN  
SUBMITTAL  
**NOT FOR  
CONSTRUCTION**

**AECOM**  
Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811  
**CH2MHILL**

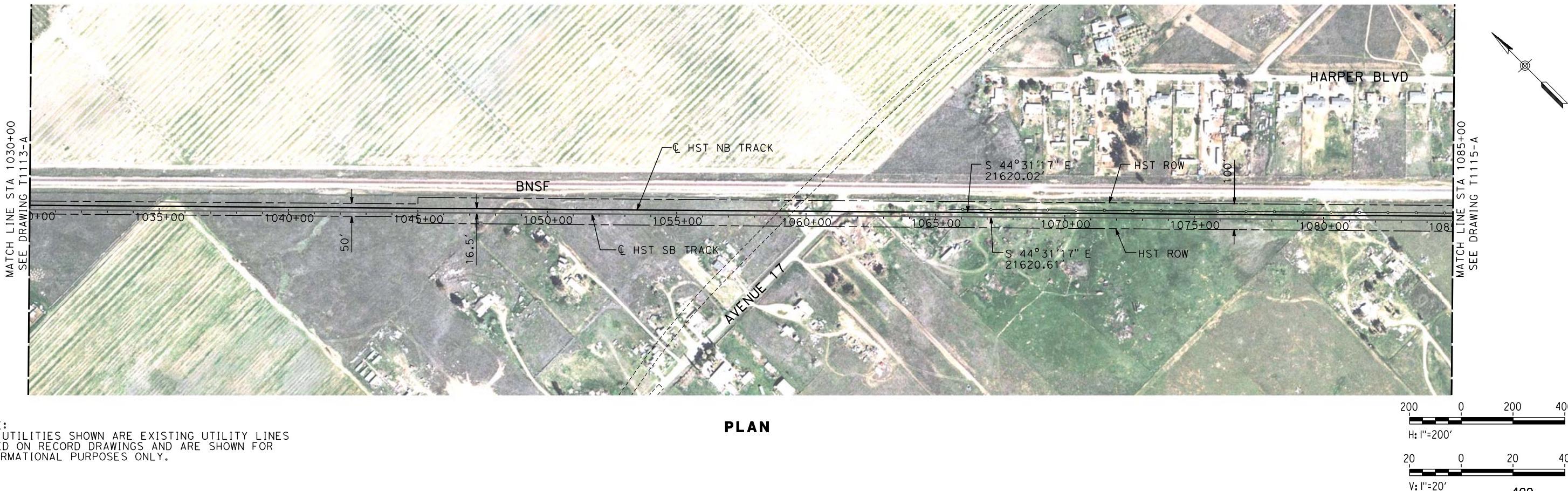


**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
MERCED TO FRESNO**

BNSF MAIN LINE

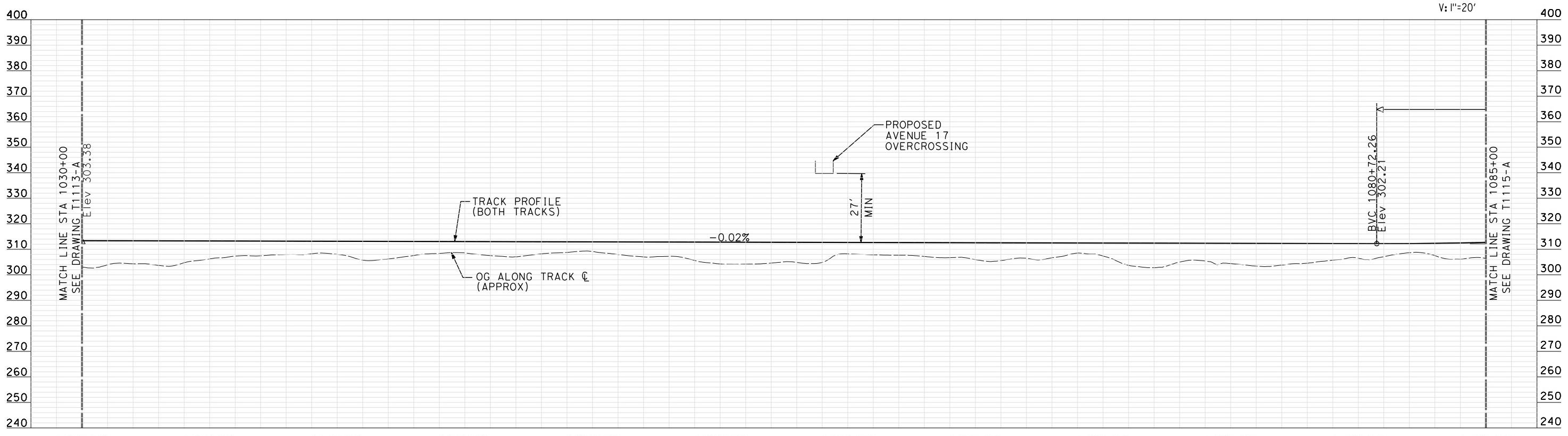
PLAN AND PROFILE  
STA 975+00 TO STA 1030+00

CONTRACT NO.  
HSR-007  
DRAWING NO.  
T1113-A  
SCALE  
AS SHOWN  
SHEET NO.  
### OF ###



**NOTE:**  
ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES  
BASED ON RECORD DRAWINGS AND ARE SHOWN FOR  
INFORMATIONAL PURPOSES ONLY.

PLAN



"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

**RECORD SE  
15% DESIGN  
SUBMITTA  
NOT FOR  
CONSTRUCT**



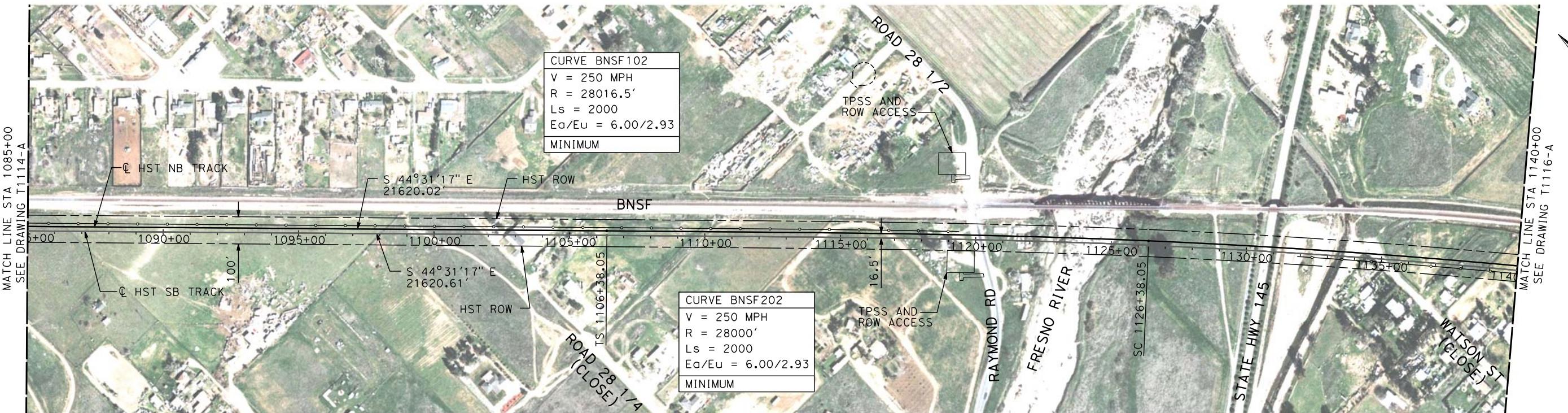
# CALIFORNIA HIGH-SPEED RAIL AUTHORITY

# CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO

BNSF MAINLINE

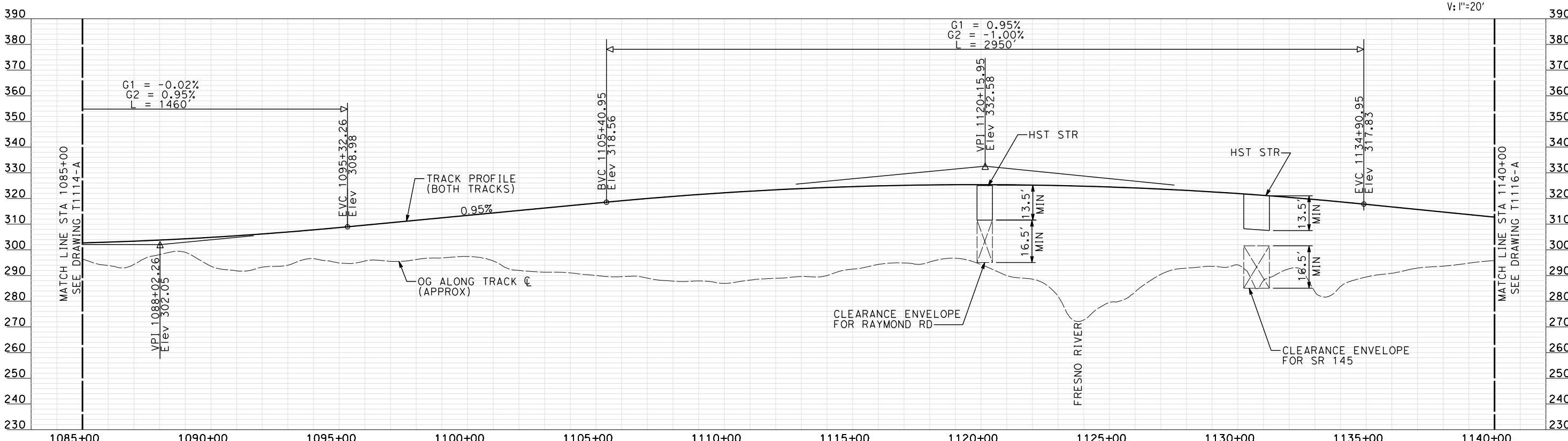
PLAN AND PROFILE  
STA 1030+00 TO STA 1085+00

CONTRACT NO.  
HSR06-007  
DRAWING NO.  
T1114-A  
SCALE  
AS SHOWN  
SHEET NO.  
#### OF ####



NOTE:  
ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES  
BASED ON RECORD DRAWINGS AND ARE SHOWN FOR  
INFORMATIONAL PURPOSES ONLY.

**PLAN**



**PROFILE**

"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

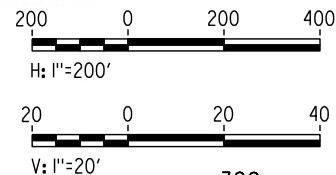
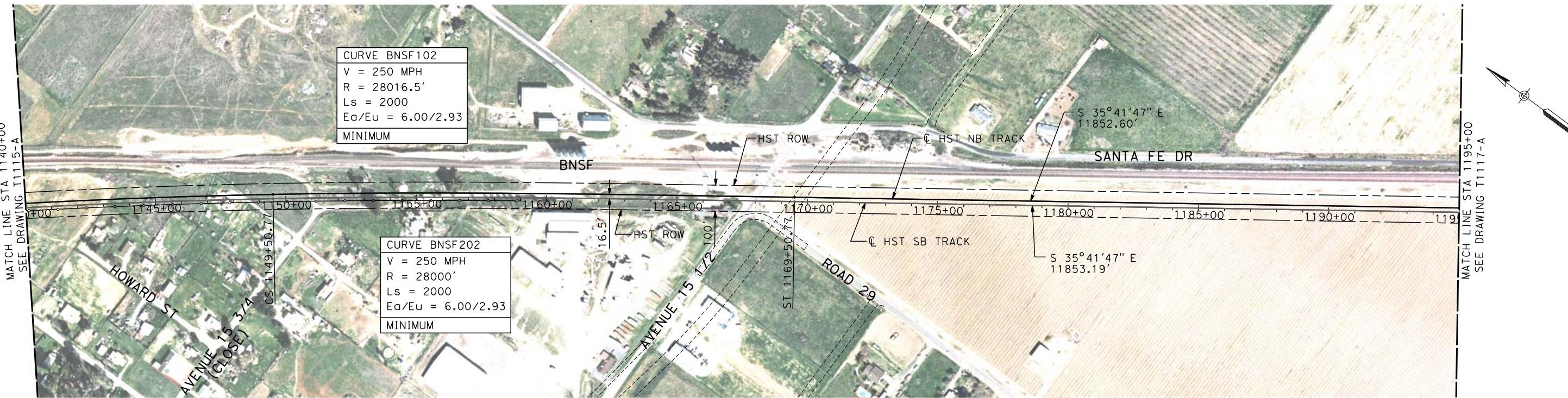
CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO										CONTRACT NO. HSR06-007
BNSF MAIN LINE										DRAWING NO. T1115-A
PLAN AND PROFILE STA 1085+00 TO STA 1140+00										SCALE AS SHOWN
1	12/12/2011	AS								SHEET NO. ### OF ###
REV	DATE	BY	CHK	APP	DESCRIPTION					
					SR 145 REDESIGN					
					07/27/2011					

DESIGNED BY  
A. SHIELDS  
DRAWN BY  
H. SULLIVAN  
CHECKED BY  
A. BOONE  
IN CHARGE  
A. BOONE  
DATE  
07/27/2011

RECORD SET  
15% DESIGN  
SUBMITTAL  
**NOT FOR  
CONSTRUCTION**

**AECOM**  
Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811  
**CH2MHILL**





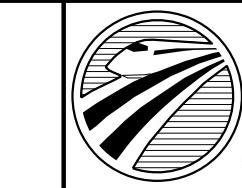
PROFILE

"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

DESIGNED BY A. SHIELDS	RECORD SET 15% DESIGN SUBMITTAL
DRAWN BY H. SULLIVAN	NOT FOR CONSTRUCTION
CHECKED BY A. BOONE	IN CHARGE A. BOONE
IN CHARGE A. BOONE	DATE 07/27/2011

**AECOM**  
Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811

**CH2MHILL**



CALIFORNIA  
HIGH-SPEED RAIL AUTHORITY

**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
MERCED TO FRESNO**

BNSF MAIN LINE

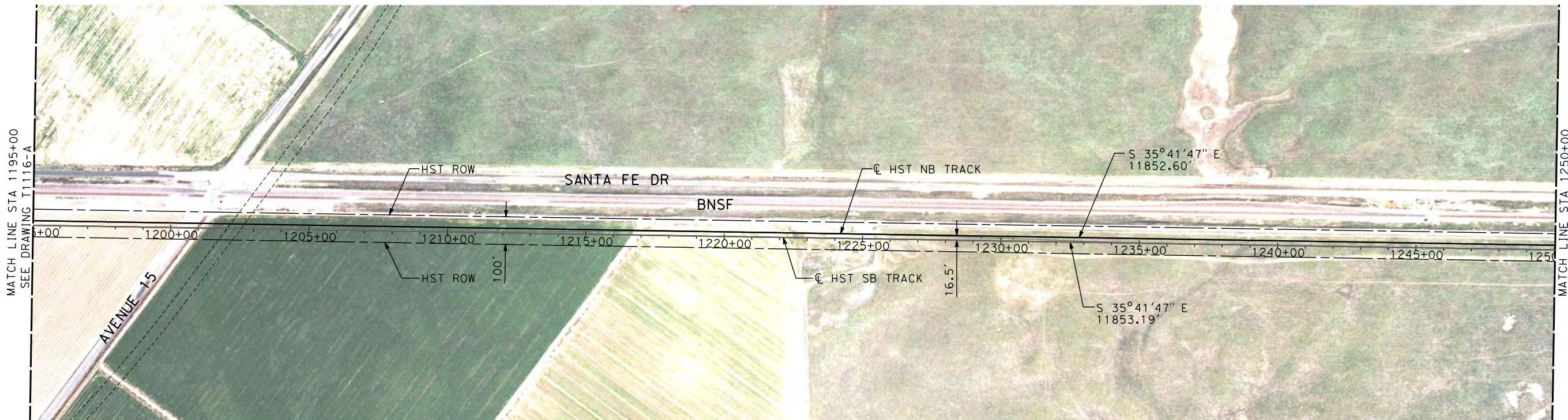
PLAN AND PROFILE  
STA 1140+00 TO STA 1195+00

CONTRACT NO.  
HSR06-007

DRAWING NO.  
T1116-A

SCALE  
AS SHOWN

SHEET NO.  
### OF ###

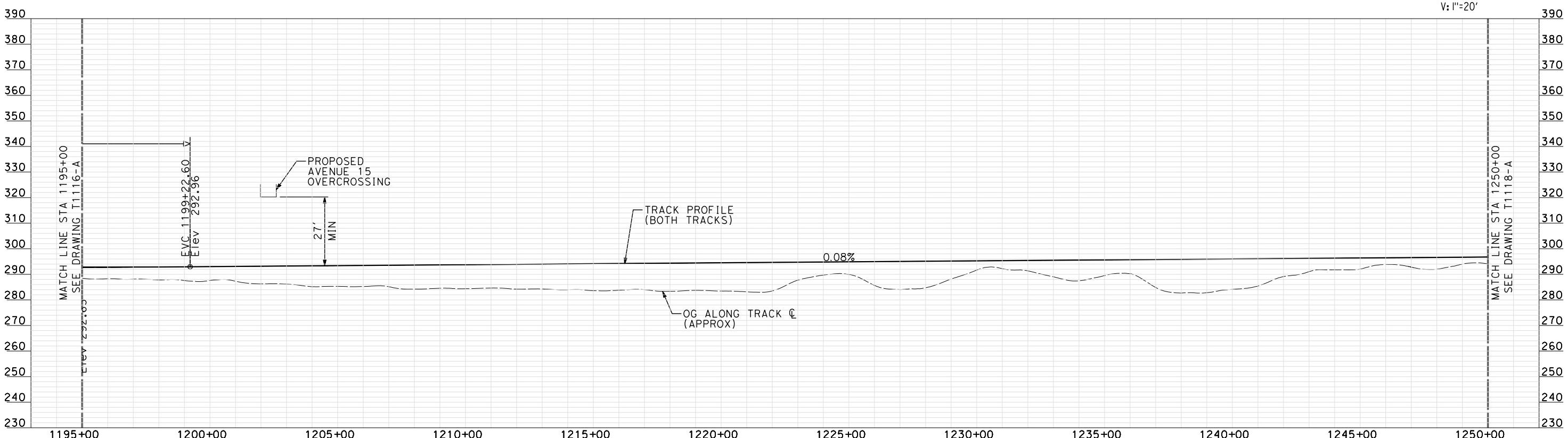


**PLAN**

200 0 200 400  
H: 1"=200'  
20 0 20 40  
V: 1"=20'

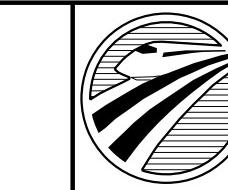
MATCH LINE STA 1195+00  
SEE DRAWING T1116-A

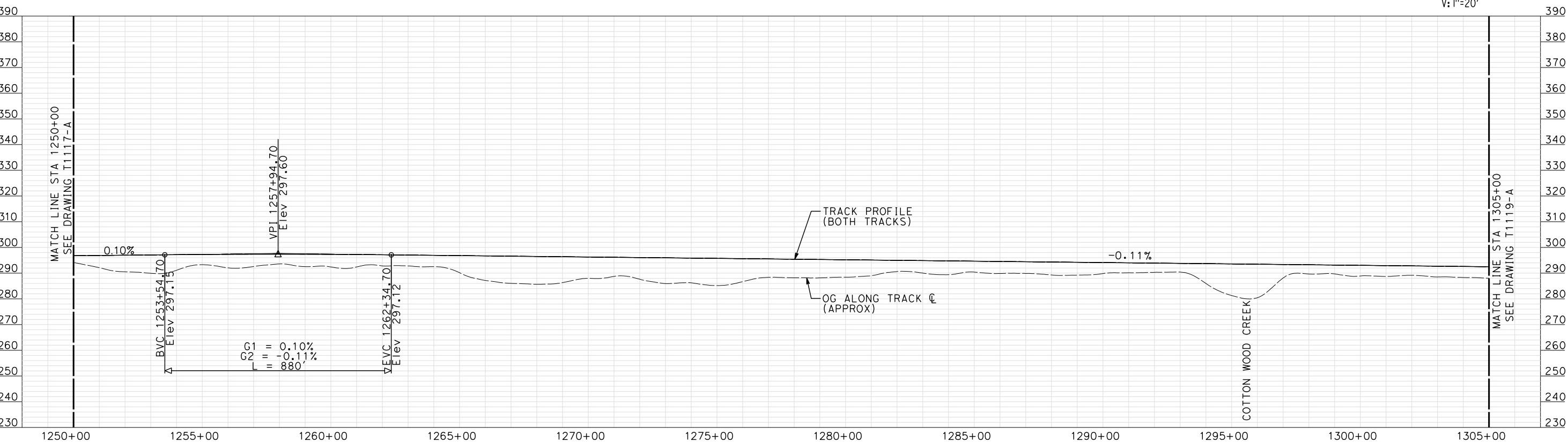
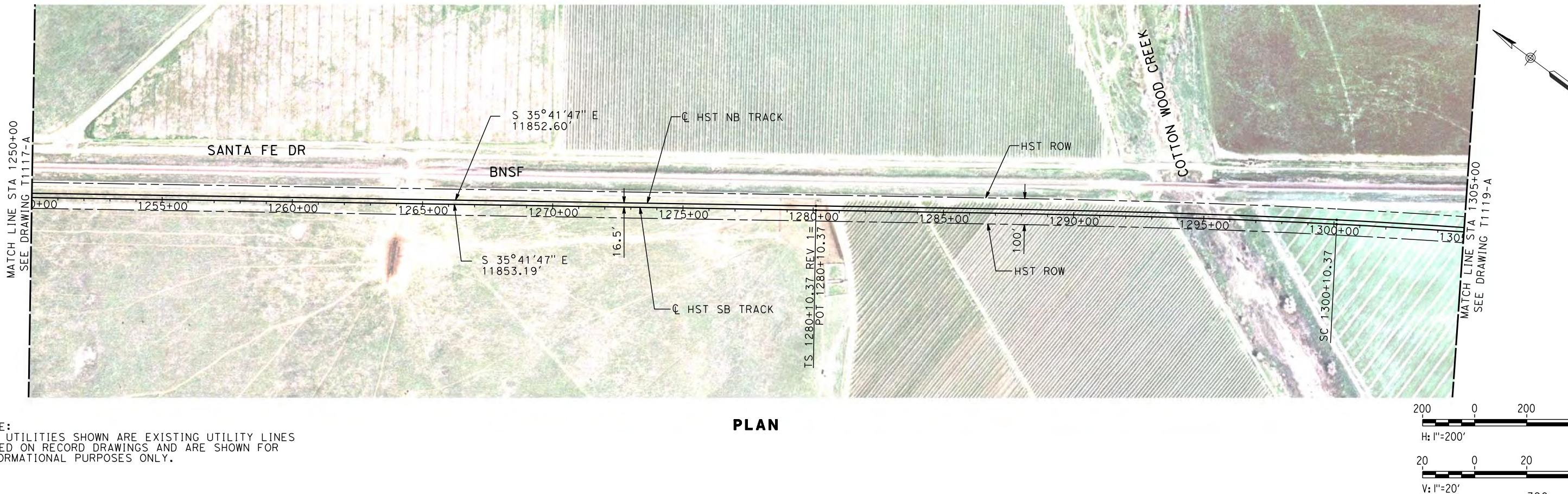
MATCH LINE STA 1250+00  
SEE DRAWING T1118-A



**PROFILE**

"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"





"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

SHIELDSA										CONTRACT NO.
										HSR06-007
										DRAWING NO.
										T1118-A
1	12/12/2011	AS								SCALE
REV	DATE	BY	CHK	APP	TRACK REALIGNMENT					AS SHOWN
					DESCRIPTION					SHEET NO.
										### OF ###

DESIGNED BY  
A. SHIELDS  
DRAWN BY  
H. SULLIVAN  
CHECKED BY  
A. BOONE  
IN CHARGE  
A. BOONE  
DATE  
07/27/2011

RECORD SET  
15% DESIGN  
SUBMITTAL  
**NOT FOR  
CONSTRUCTION**

**AECOM**  
Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811  
**CH2MHILL**

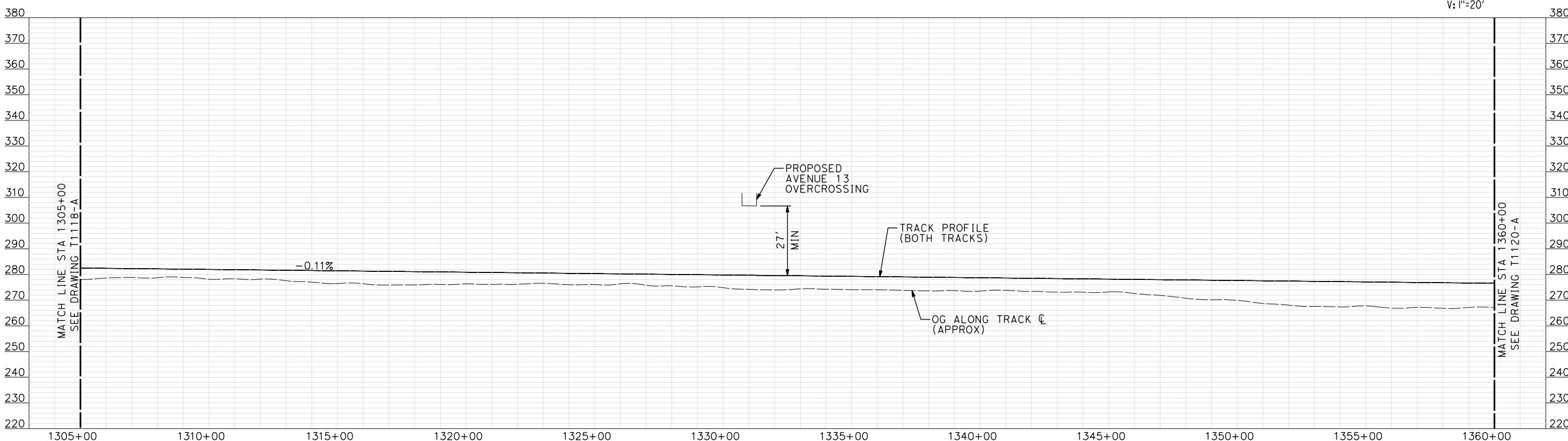
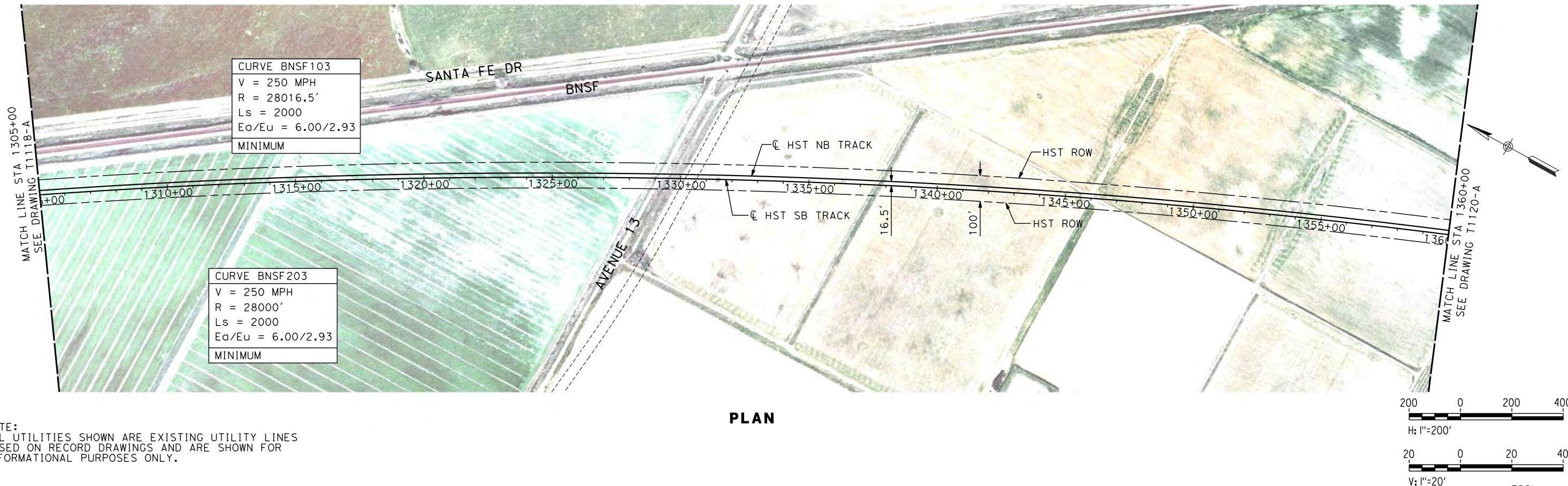


CALIFORNIA  
HIGH-SPEED RAIL AUTHORITY

## CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO

BSNF MAIN LINE

PLAN AND PROFILE  
STA 1250+00 TO STA 1305+00



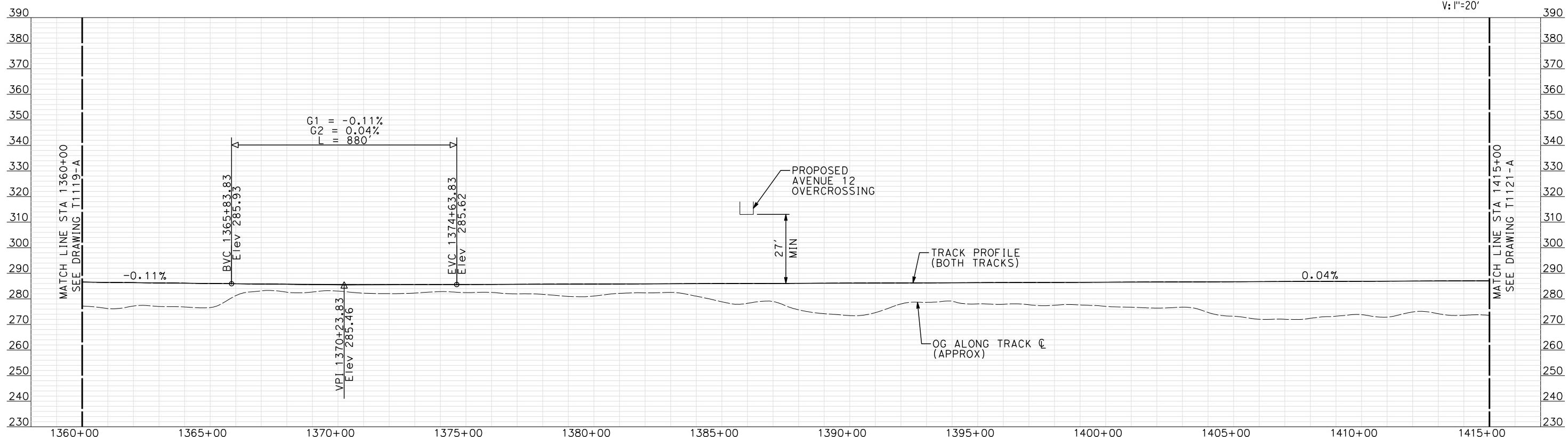
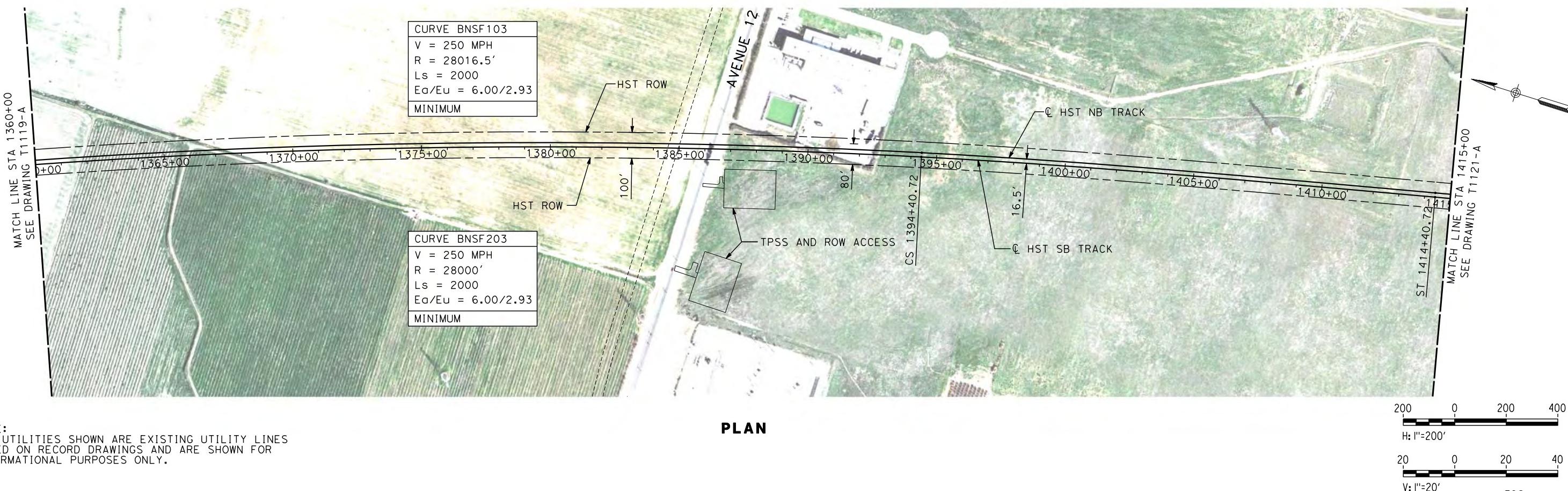
**PROFILE**

"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

										CONTRACT NO. HSR06-007
										DRAWING NO. T1119-A
										SCALE AS SHOWN
										SHEET NO. ### OF ###
1	12/12/2011	AS								
TRACK REALIGNMENT										BNSF MAIN LINE
REV	DATE	BY	CHK	APP	DESCRIPTION	IN CHARGE A. BOONE	DATE 07/27/2011	NOT FOR CONSTRUCTION	AECOM Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811	CALIFORNIA HIGH-SPEED RAIL AUTHORITY

**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
MERCED TO FRESNO**

PLAN AND PROFILE  
STA 1305+00 TO STA 1360+00



"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

**RECORD S  
15% DESIGN  
SUBMITTA**

**AECOM**  
Technical Services, Inc.  
2020 L Street, Suite  
Sacramento, CA 95811  
**CH2MHILL**

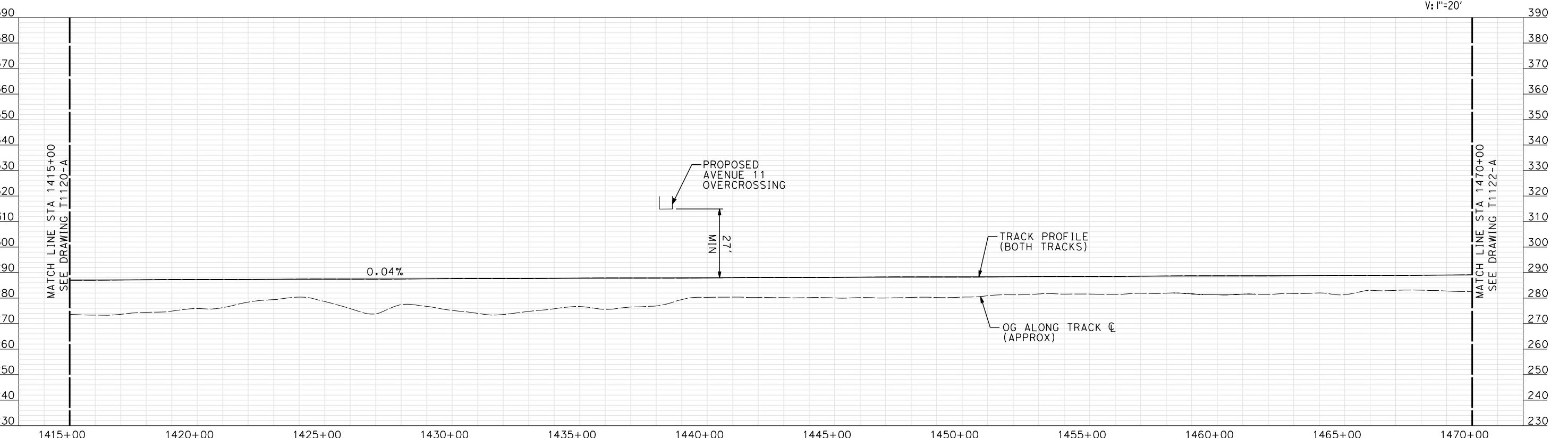
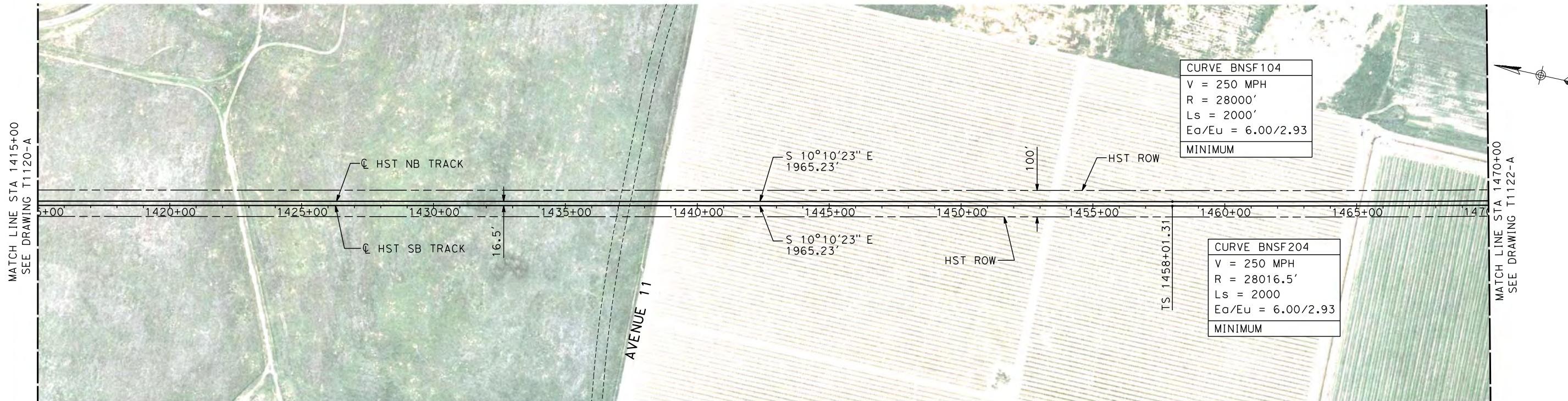


*CALIFORNIA*  
HIGH-SPEED RAIL AUTHORITY

**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
MERCED TO FRESNO**

PLAN AND PROFILE

CONTRACT NO.  
HSR06-007  
DRAWING NO.  
T1120-A  
SCALE  
AS SHOWN  
HEET NO.  
#### OF ####



					DESIGNED BY A. SHIELDS					
TRACK REALIGNMENT		DRAWN BY H. SULLIVAN								
		CHECKED BY A. BOONE								
IN CHARGE A. BOONE										
DATE 07/27/2011										
DESCRIPTION										

RECORD SET  
15% DESIGN  
SUBMITTAL  
**NOT FOR  
CONSTRUCTION**

**AECOM**  
Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811  
**CH2MHILL**

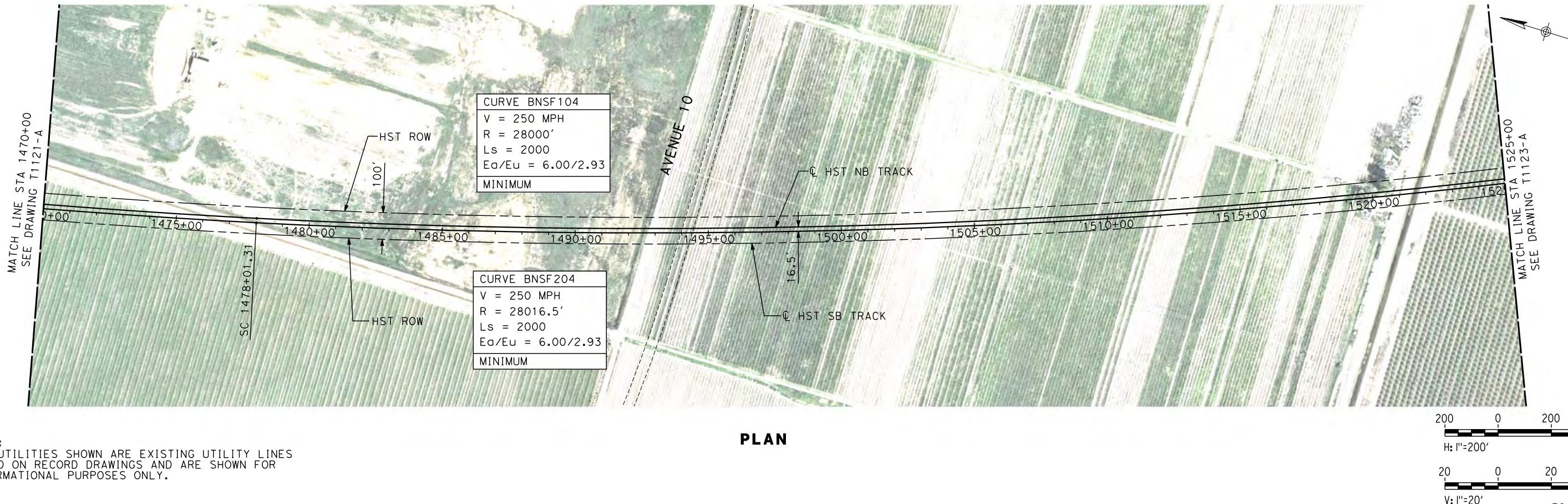


**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
MERCED TO FRESNO**

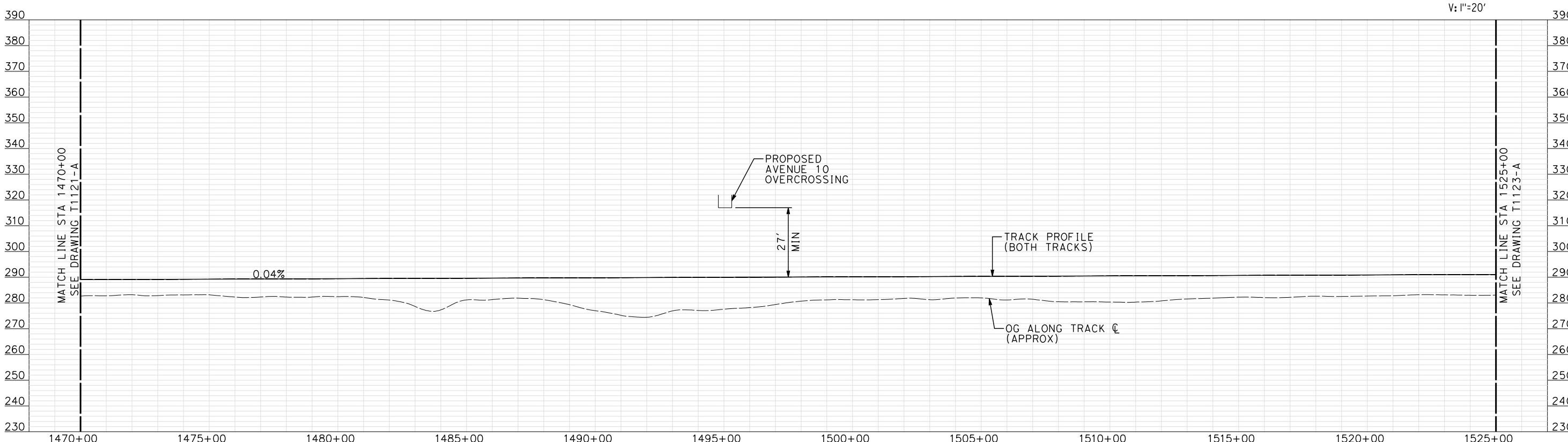
BNSF MAIN LINE

PLAN AND PROFILE  
STA 1415+00 TO STA 1470+00

CONTRACT NO.  
HSR06-007  
DRAWING NO.  
T1121-A  
SCALE  
AS SHOWN  
SHEET NO.  
### OF ###



**NOTE:**  
ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES  
BASED ON RECORD DRAWINGS AND ARE SHOWN FOR  
INFORMATIONAL PURPOSES ONLY.



PROFILE

"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

1/10						
shieldasa						
1	12/12/2011	AS			TRACK	REALIGNMENT
REV	DATE	BY	CHK	APP	DESCRIPTION	

**RECORD SE  
15% DESIGN  
SUBMITTA  
NOT FOR  
CONSTRUCT**

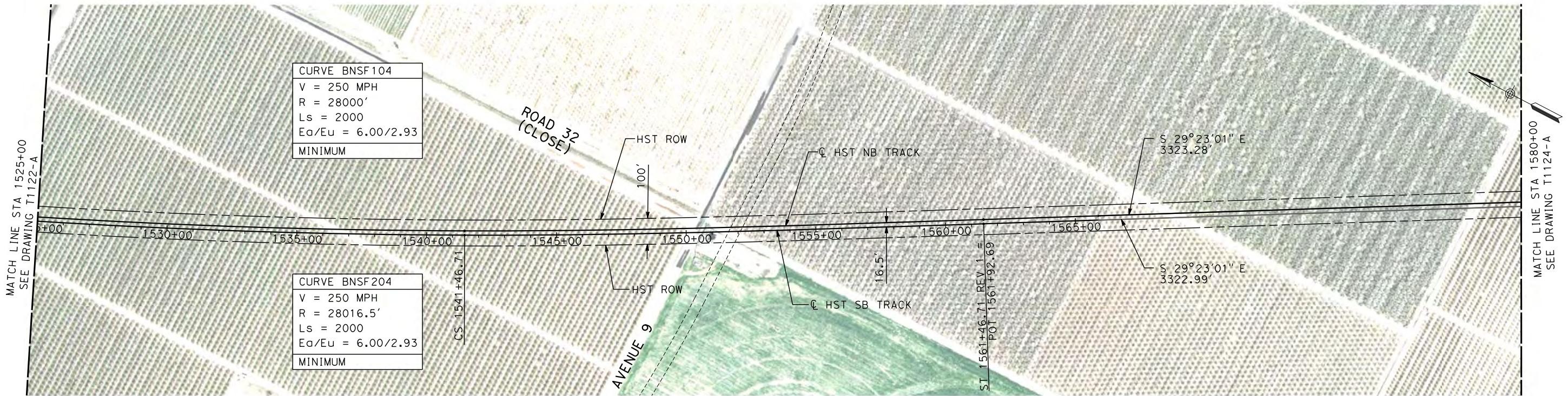


CALIFORNIA  
HIGH-SPEED RAIL AUTHORITY

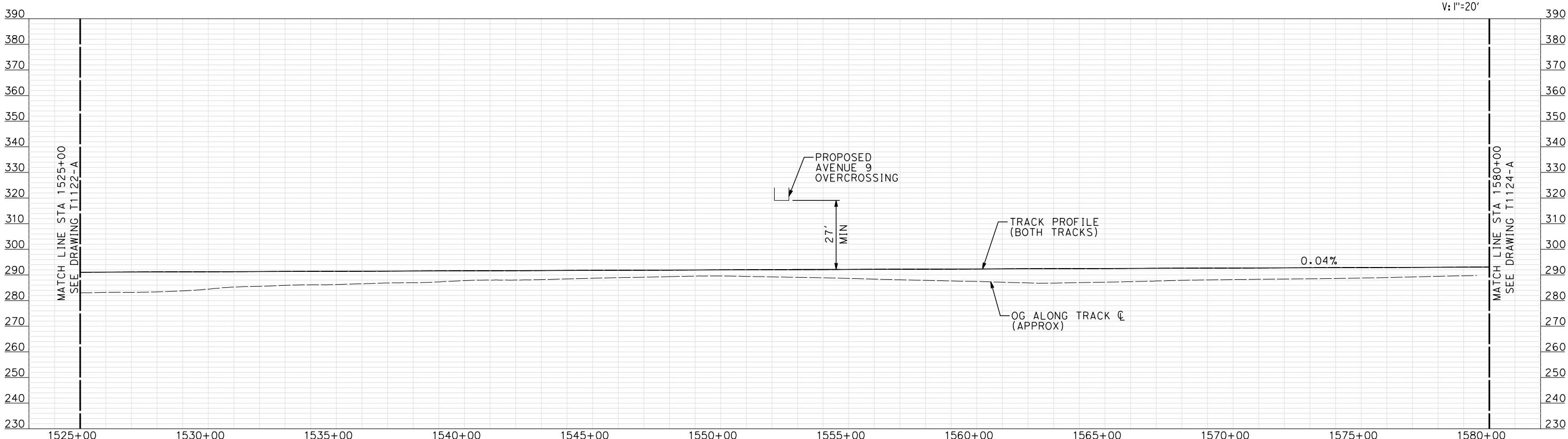
# **CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO**

BNSF MAIN LINE  
PLAN AND PROFILE  
STA 1470+00 TO STA 1525+00

D DETAILS  
CONTRACT NO.  
HSR06-007  
DRAWING NO.  
T1122-A  
SCALE  
AS SHOWN  
SHEET NO.  
#### OF ####



**NOTE:**  
ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES  
BASED ON RECORD DRAWINGS AND ARE SHOWN FOR  
INFORMATIONAL PURPOSES ONLY.



"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

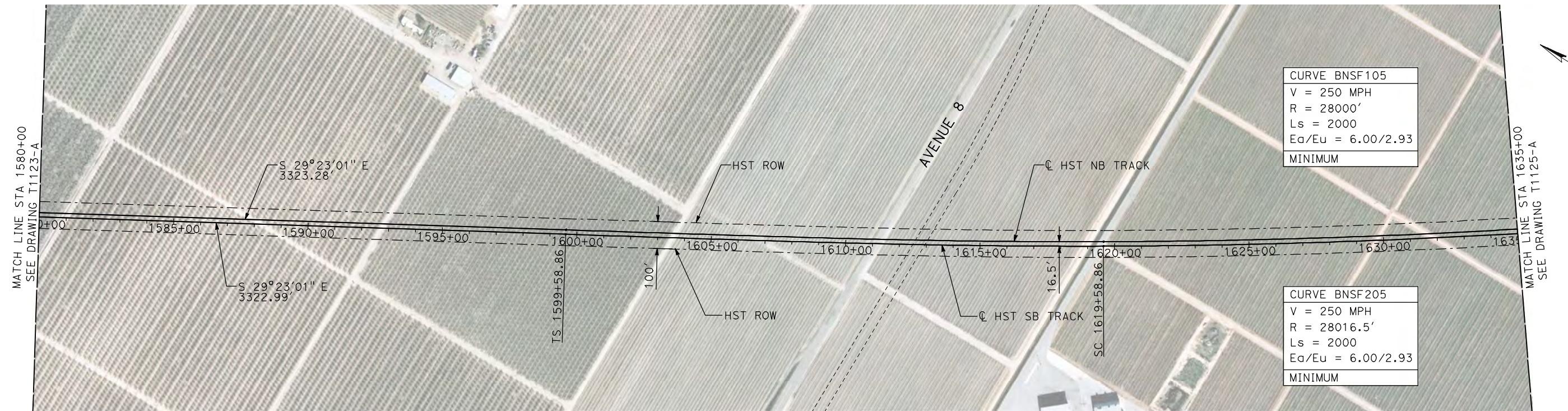
**RECORD S  
15% DESIGN  
SUBMITTA  
NOT FOR  
CONSTRUC**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
MERCED TO FRESNO**

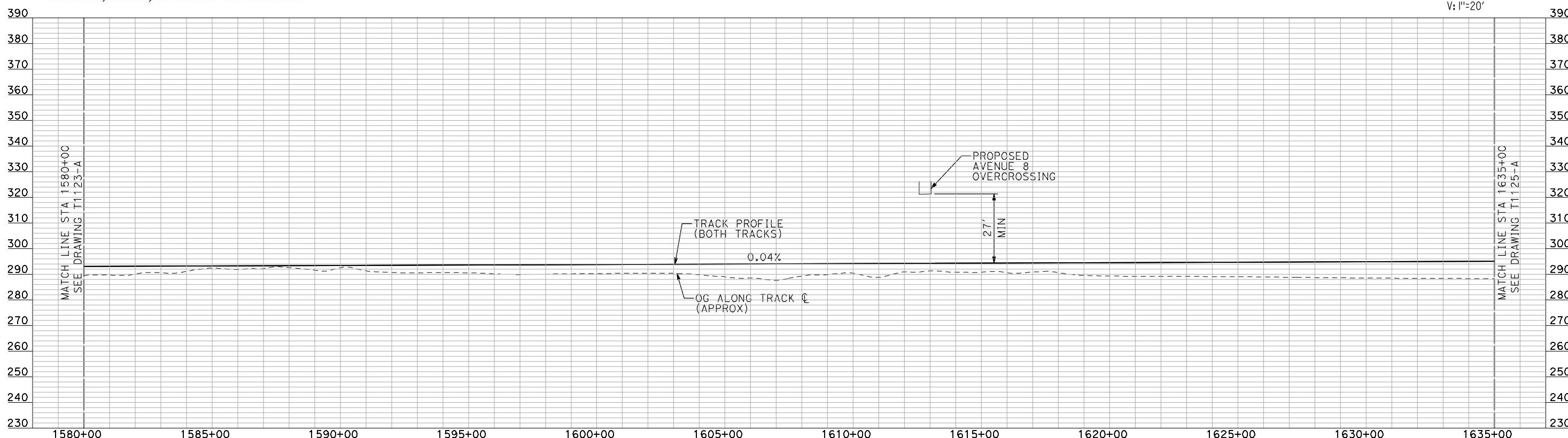
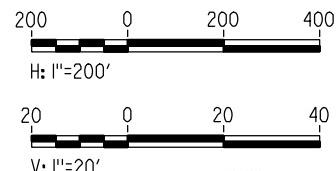
PLAN AND PROFILE

D DETAILS  
CONTRACT NO.  
HSR06-007  
DRAWING NO.  
T1123-A  
SCALE  
AS SHOWN  
HEET NO.  
### OF ###



- NOTES:
- ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
  - TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

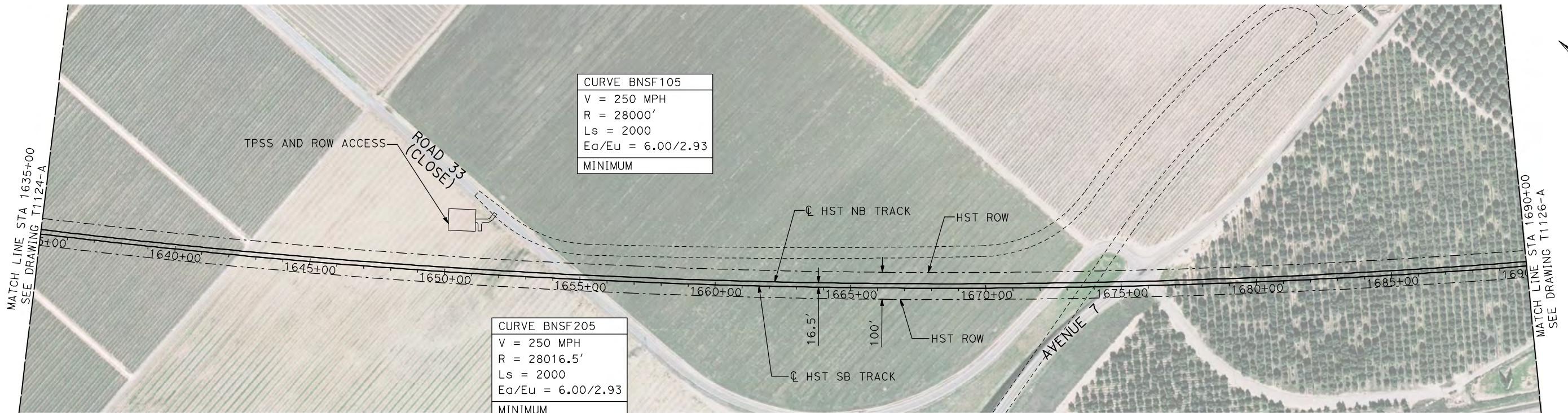
**PLAN**



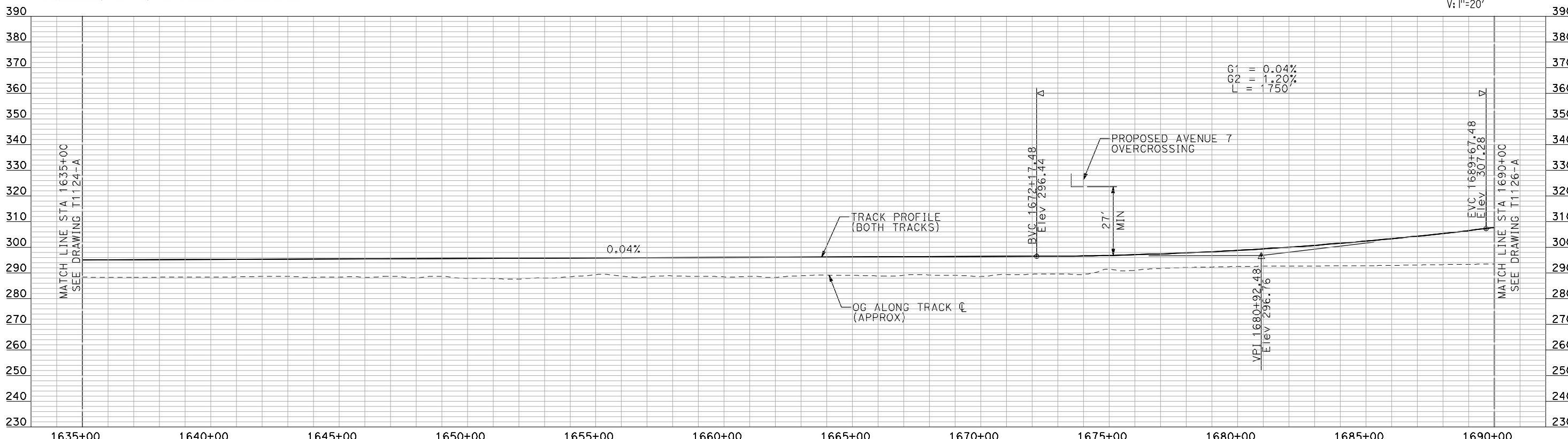
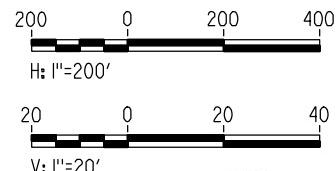
**PROFILE**

"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

					DESIGNED BY A. SHIELDS	RECORD SET 15% DESIGN SUBMITTAL	AECOM Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811	CH2MHILL	CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO BNSF MAIN LINE PLAN AND PROFILE STA 1580+00 TO STA 1635+00	CONTRACT NO. HSR06-007	
					DRAWN BY H. SULLIVAN	NOT FOR CONSTRUCTION				DRAWING NO. T1124-A	
					CHECKED BY A. BOONE					SCALE AS SHOWN	
					IN CHARGE A. BOONE					SHEET NO. ### OF ###	
					DATE 07/20/2011						
REV	DATE	BY	CHK	APP	DESCRIPTION						



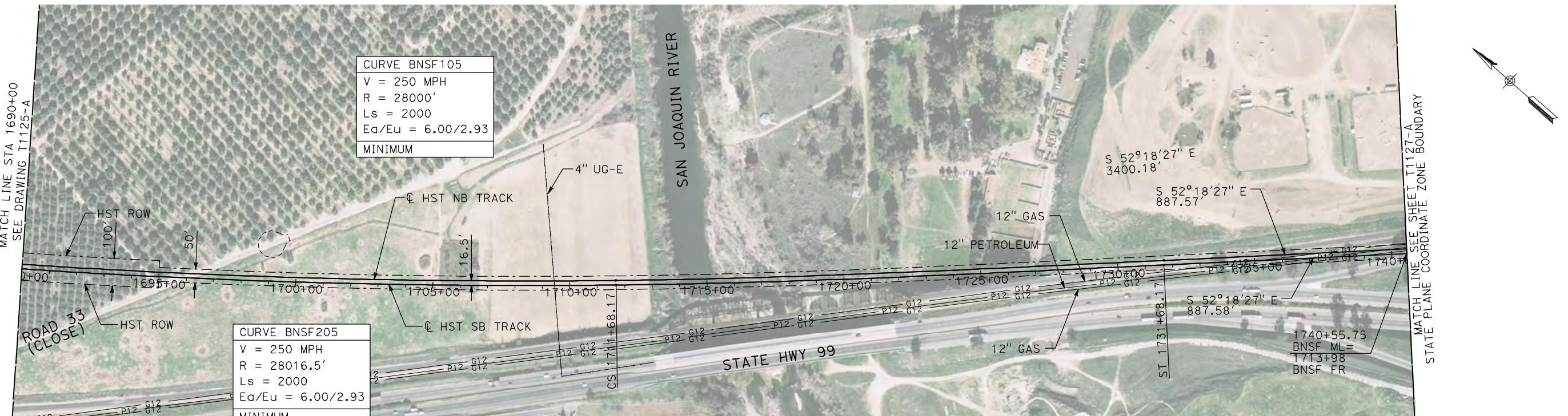
- NOTES:
- ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
  - TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



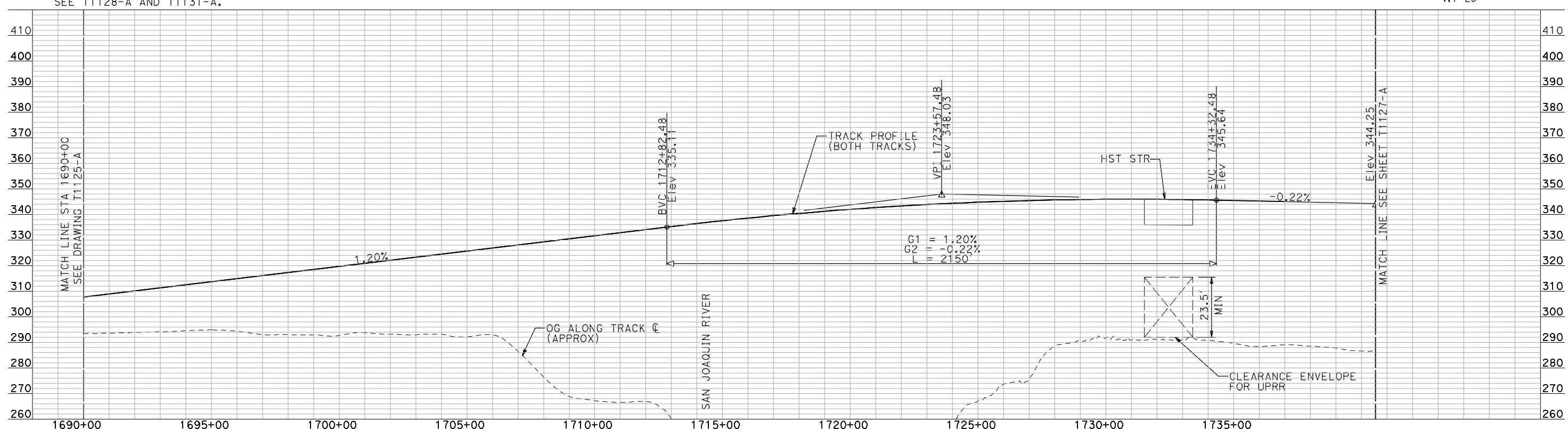
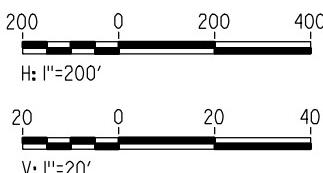
PROFILE

"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

				DESIGNED BY A. SHIELDS	RECORD SET 15% DESIGN SUBMITTAL	AECOM Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811	CH2MHILL	CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO BNSF MAIN LINE PLAN AND PROFILE STA 1635+00 TO STA 1690+00	CONTRACT NO. HSR06-007
				DRAWN BY H. SULLIVAN	NOT FOR CONSTRUCTION				DRAWING NO. T1125-A
				CHECKED BY A. BOONE					SCALE AS SHOWN
				IN CHARGE A. BOONE					SHEET NO. ### OF ###
				DATE 07/20/2011					
REV	DATE	BY	CHK	APP	DESCRIPTION				

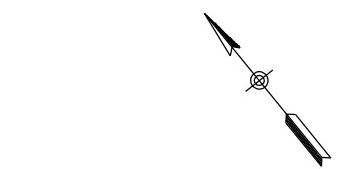
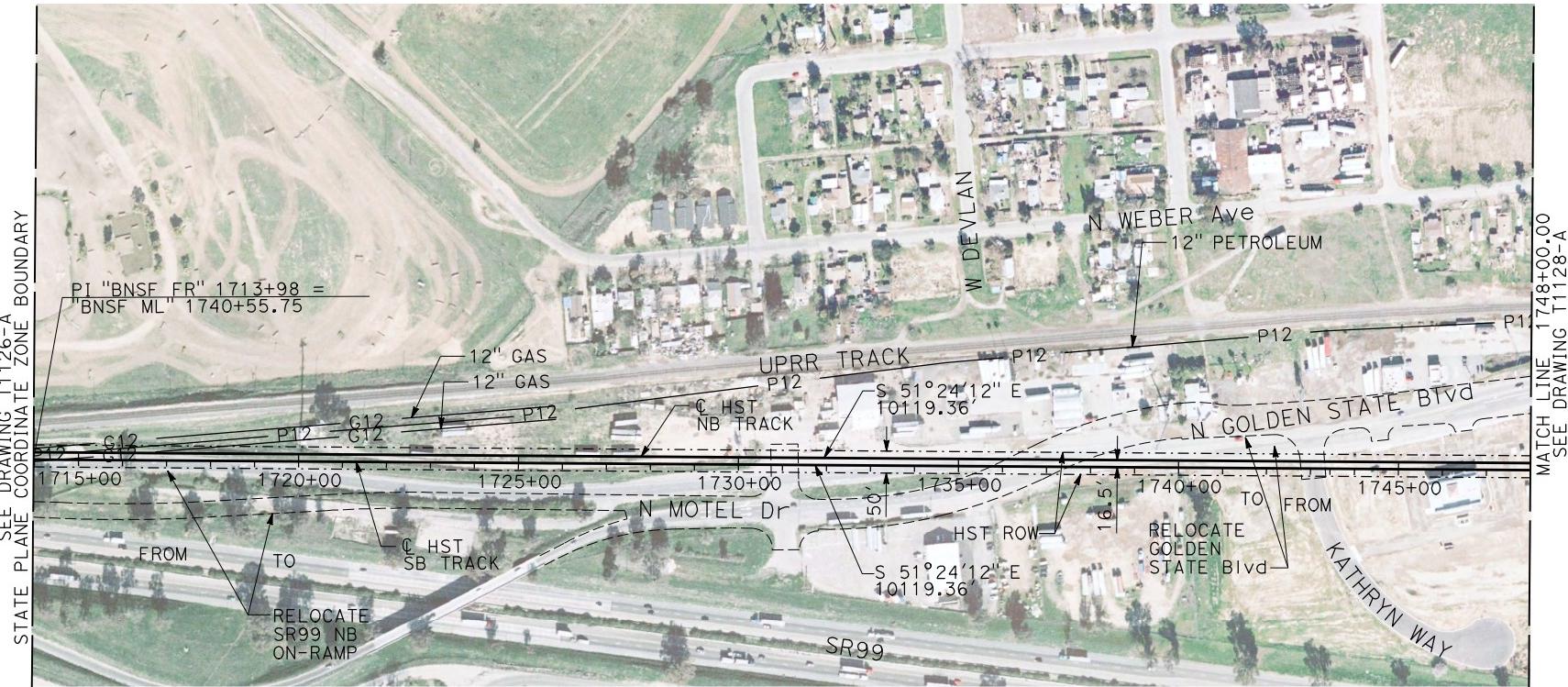


**PLAN**



**PROFILE**

"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"



HORIZONTAL SCALE 1"=200'

200 0 200 400

20 0 20 40

VERTICAL SCALE 1"=20'

400 390 380 370 360 350 340 330 320 310 300 290 280 270 260 250 240

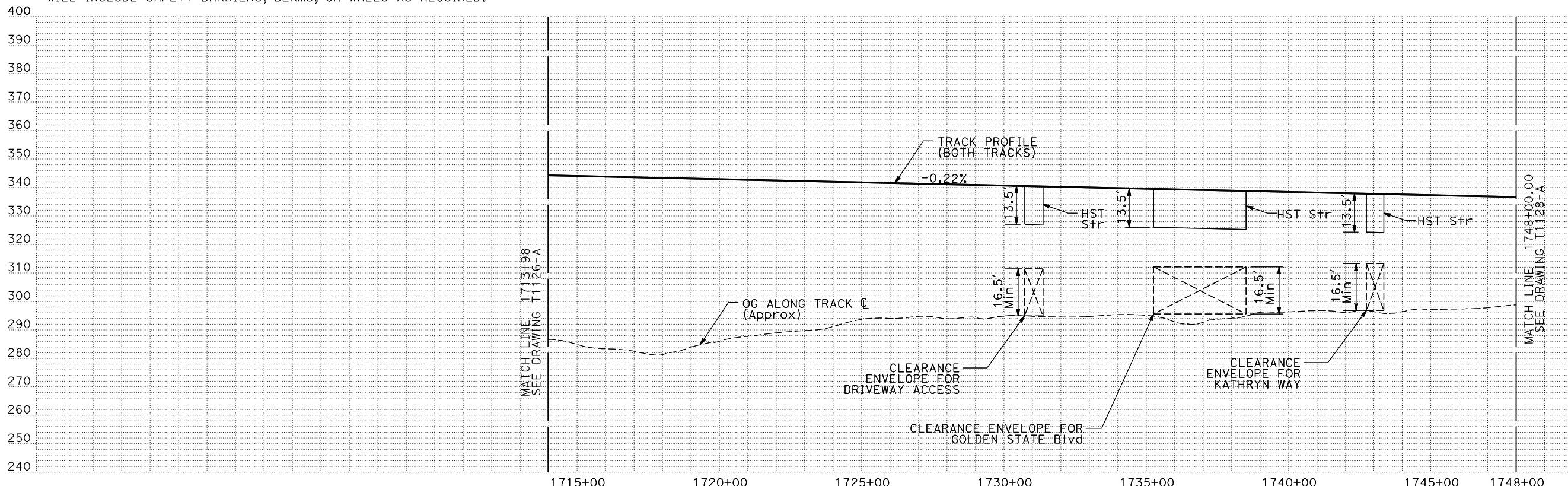
390 380 370 360 350 340 330 320 310 300 290 280 270 260 250 240

#### NOTES:

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES  
BASED ON RECORD DRAWINGS AND ARE SHOWN FOR  
INFORMATIONAL PURPOSES ONLY.

2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS  
WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

**PLAN**



**PROFILE**

"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

DESIGNED BY C. CHIU	RECORD SET 15% DESIGN SUBMITTAL	AECOM Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811	CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO	CONTRACT NO. HSR-006-007
DRAWN BY M. McKEON	NOT FOR CONSTRUCTION	CH2MHILL	BNSF MAIN LINE	DRAWING NO. T1127-A
CHECKED BY V. CHIO			PLAN AND PROFILE	SCALE AS SHOWN
IN CHARGE J. VALSECCHI			STA 1713+98 TO STA 1748+00	SHEET NO. 1
REV DATE BY CHK APP	DESCRIPTION	JULY 2011		DATE PLOTTED => 20-JUL-2013 TIME PLOTTED => 13:13:00



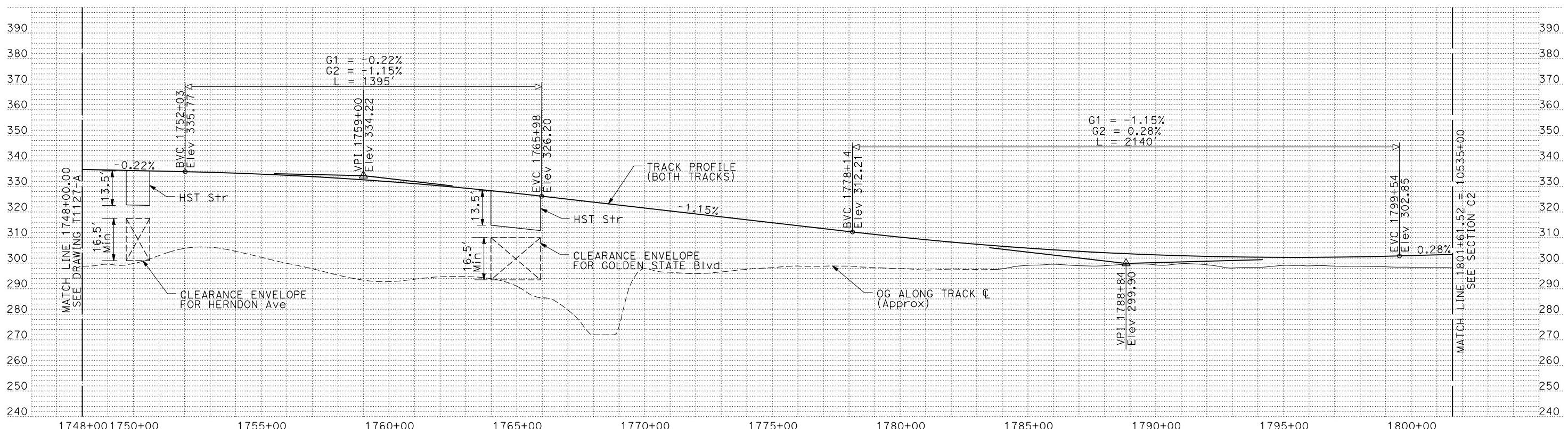


NOTES:

- ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
- TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

**PLAN**

HORIZONTAL SCALE 1"=200'  
20 0 200 400  
VERTICAL SCALE 1"=20'  
20 0 20 40



**PROFILE**

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
C. CHIU  
DRAWN BY  
M. McKEON  
CHECKED BY  
V. CHIO  
IN CHARGE  
J. VALSECCHI  
DATE  
JULY 2011

RECORD SET  
15% DESIGN  
SUBMITTAL  
**NOT FOR  
CONSTRUCTION**

**AECOM**  
Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811  
**CH2MHILL**

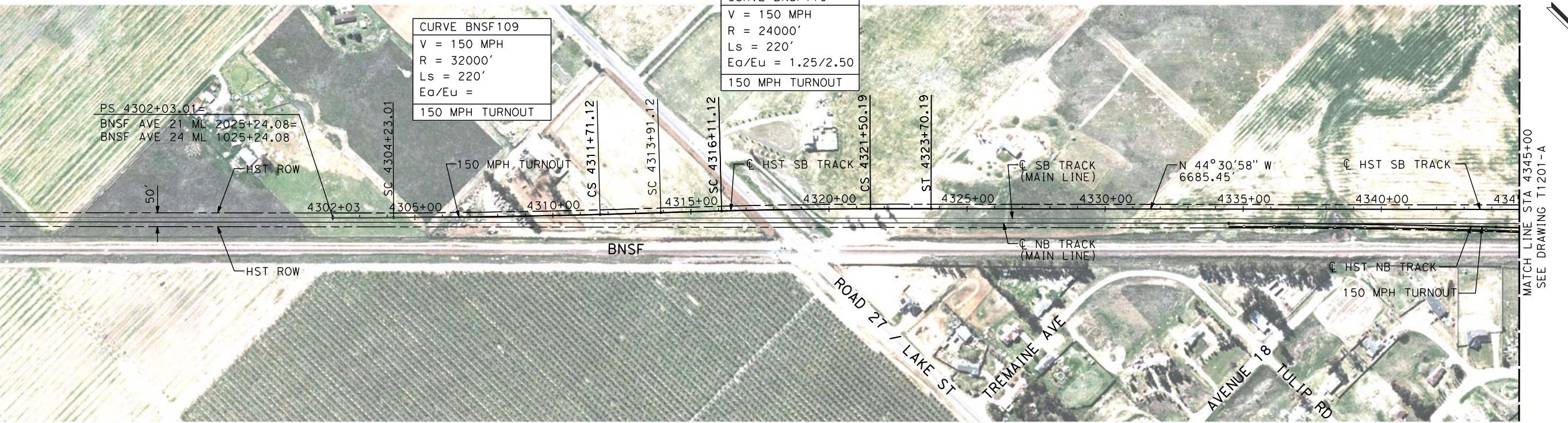


**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
MERCED TO FRESNO**

BNSF MAIN LINE

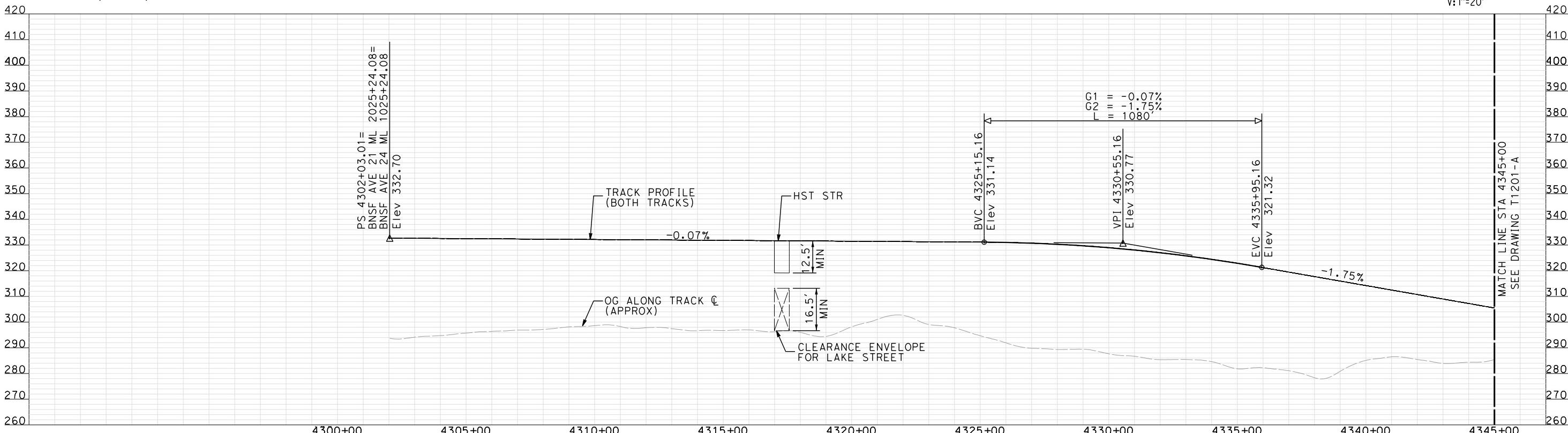
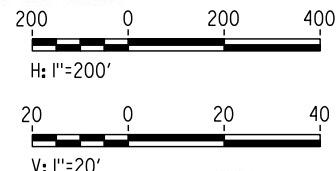
PLAN AND PROFILE  
STA 1748+00 TO STA 1801+61.52

CONTRACT NO.  
HSR06-007  
DRAWING NO.  
T1128-A  
SCALE  
AS SHOWN  
SHEET NO.  
1  
DATE PLOTTED => 05-JAN-2012  
USERNAME => sleona



- NOTES:**
- ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
  - TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

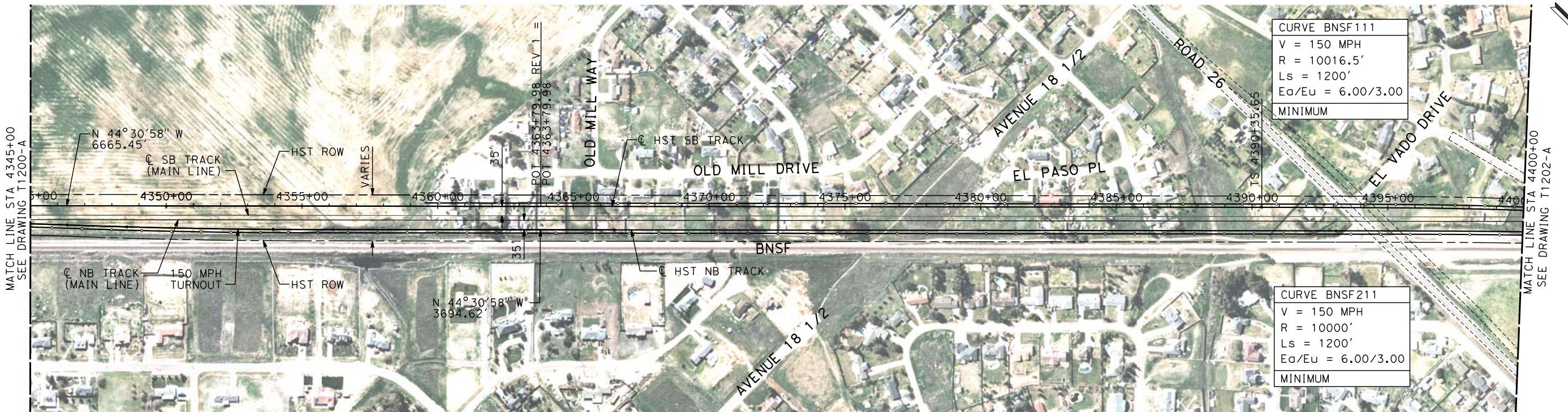
**PLAN**



**PROFILE**

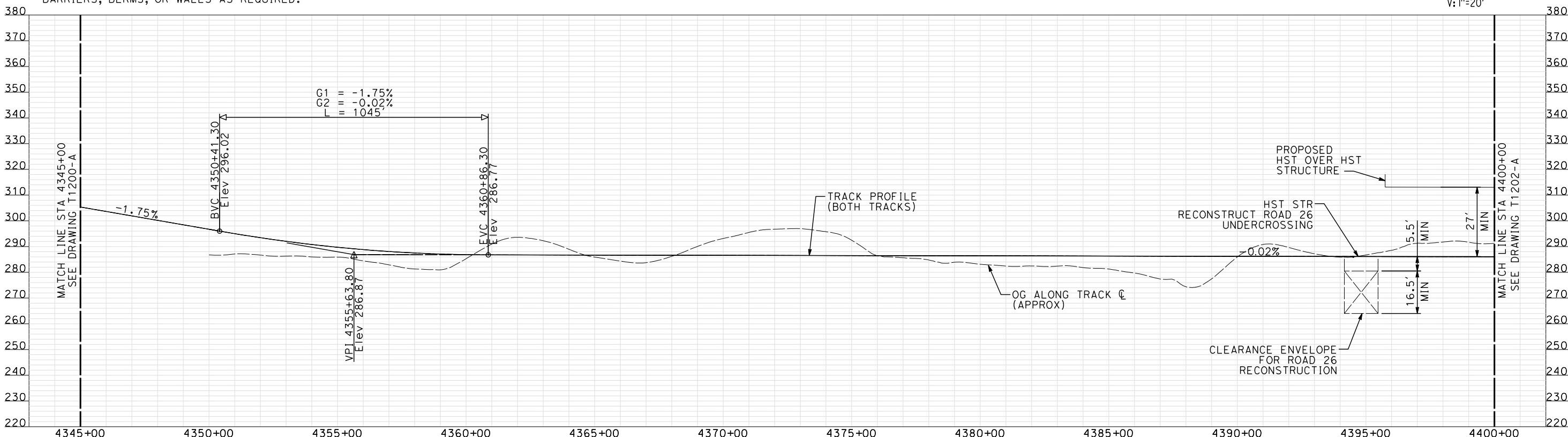
"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO										CONTRACT NO. HSR06-007
BNSF MERCED CONNECTION AVE 21 / AVE 24 PLAN AND PROFILE										DRAWING NO. T1200-A
STA 4302+03.01 TO STA 4345+00										SCALE AS SHOWN
1	12/12/2011	AS								SHEET NO. ### OF ###
REV	DATE	BY	CHK	APP	DESCRIPTION	DESIGNED BY A. SHIELDS	RECORD SET 15% DESIGN SUBMITTAL	AECOM Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811	CH2MHILL	CALIFORNIA HIGH-SPEED RAIL AUTHORITY
					TRACK REALIGNMENT	DRAWN BY H. SULLIVAN	CHECKED BY A. BOONE			
					IN CHARGE A. BOONE	NOT FOR CONSTRUCTION				
					DATE 07/27/2011					



- NOTES:**
- ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
  - TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

**PLAN**



**PROFILE**

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

					DESIGNED BY A. SHIELDS	RECORD SET 15% DESIGN SUBMITTAL	NOT FOR CONSTRUCTION	IN CHARGE A. BOONE	DATE 07/27/2011
1	12/12/2011	AS			DRAWN BY H. SULLIVAN				
	TRACK REALIGNMENT				CHECKED BY A. BOONE				
REV	DATE	BY	CHK	APP	DESCRIPTION				

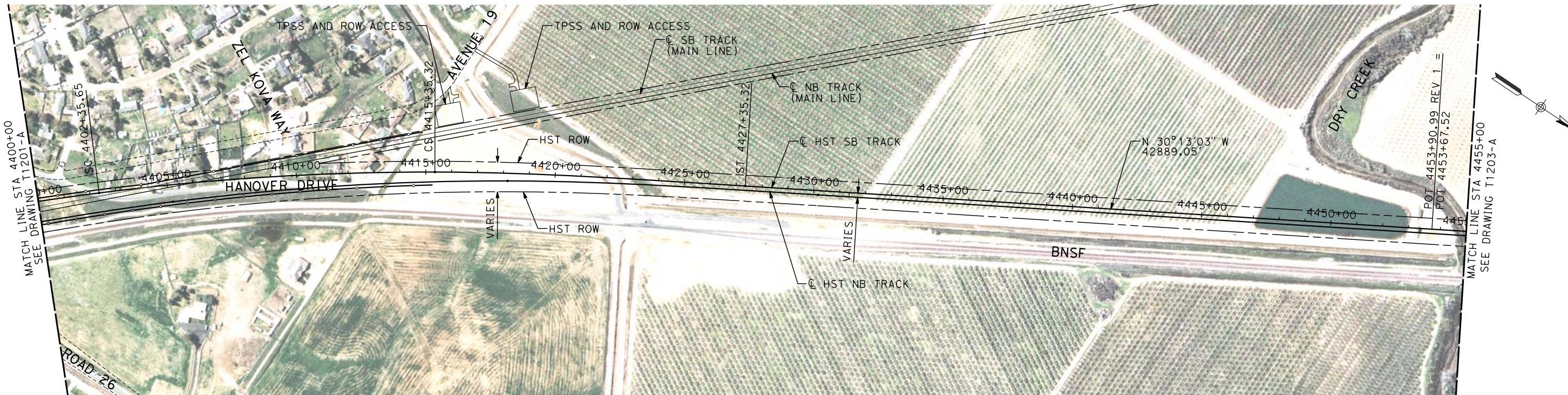
**AECOM**  
Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811

**CH2MHILL**



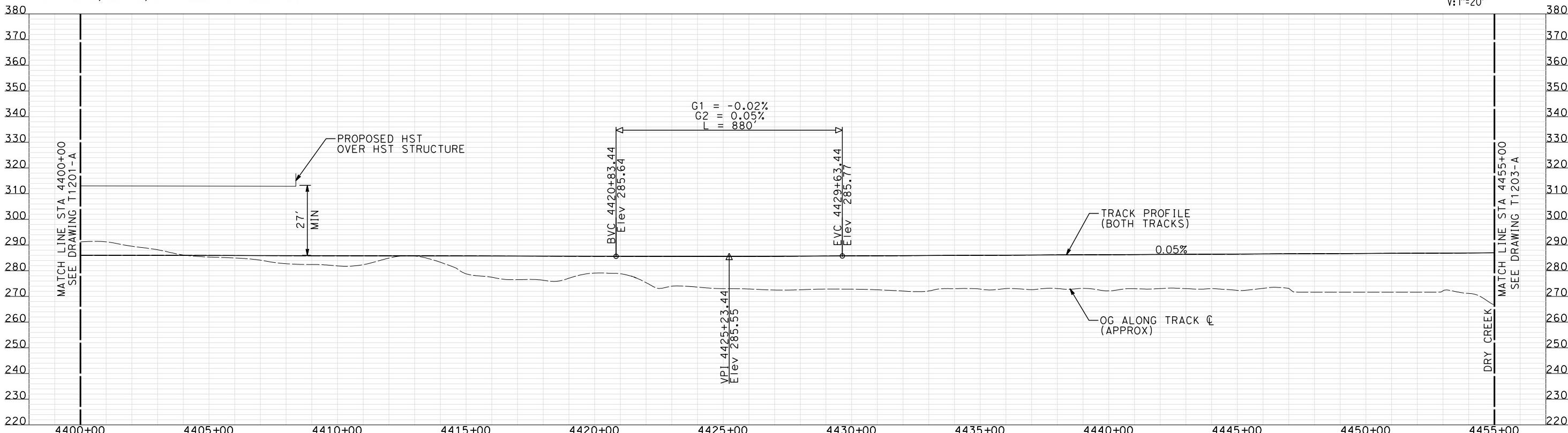
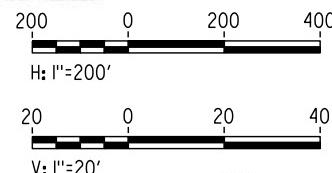
**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
MERCED TO FRESNO**  
BNSF MERCED CONNECTION  
AVE 21 / AVE 24  
PLAN AND PROFILE  
STA 4345+00 TO STA 4400+00

CONTRACT NO.  
HSR6-007  
DRAWING NO.  
T1201-A  
SCALE  
AS SHOWN  
SHEET NO.  
### OF ###



- NOTES:**
- ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
  - TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

**PLAN**



**PROFILE**

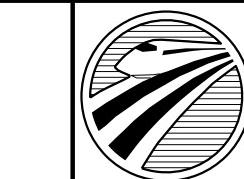
"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

TRACK REALIGNMENT

DESIGNED BY	A. SHIELDS
DRAWN BY	H. SULLIVAN
CHECKED BY	A. BOONE
IN CHARGE	A. BOONE
DATE	07/27/2011

RECORD SET  
15% DESIGN  
SUBMITTAL  
**NOT FOR  
CONSTRUCTION**

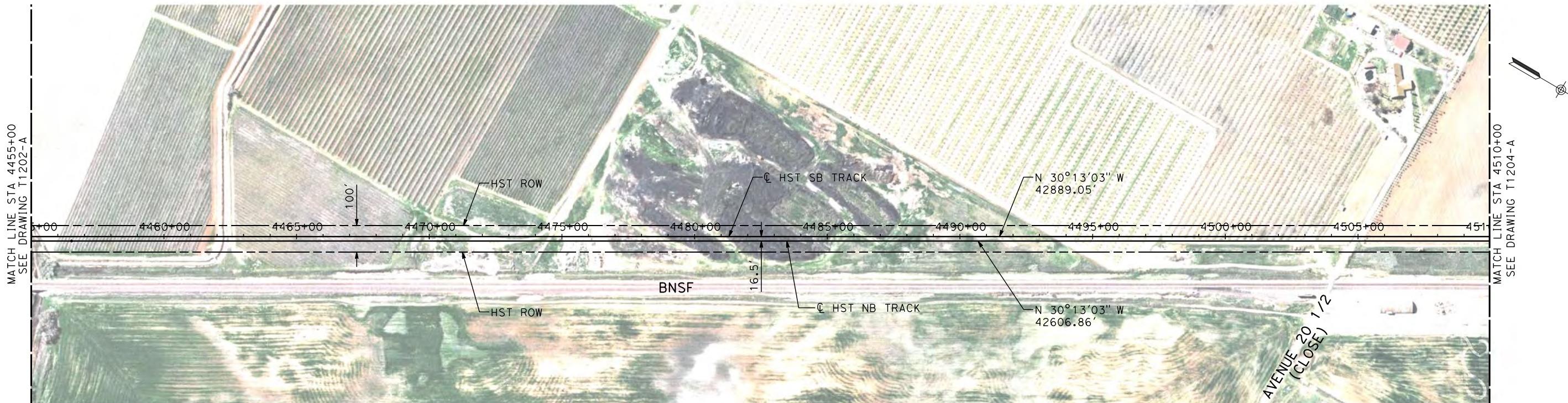
**AECOM**  
Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811  
**CH2MHILL**



CALIFORNIA  
HIGH-SPEED RAIL AUTHORITY

**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
MERCED TO FRESNO**  
BNSF MERCED CONNECTION  
AVE 21 / AVE 24  
PLAN AND PROFILE  
STA 4400+00 TO STA 4455+00

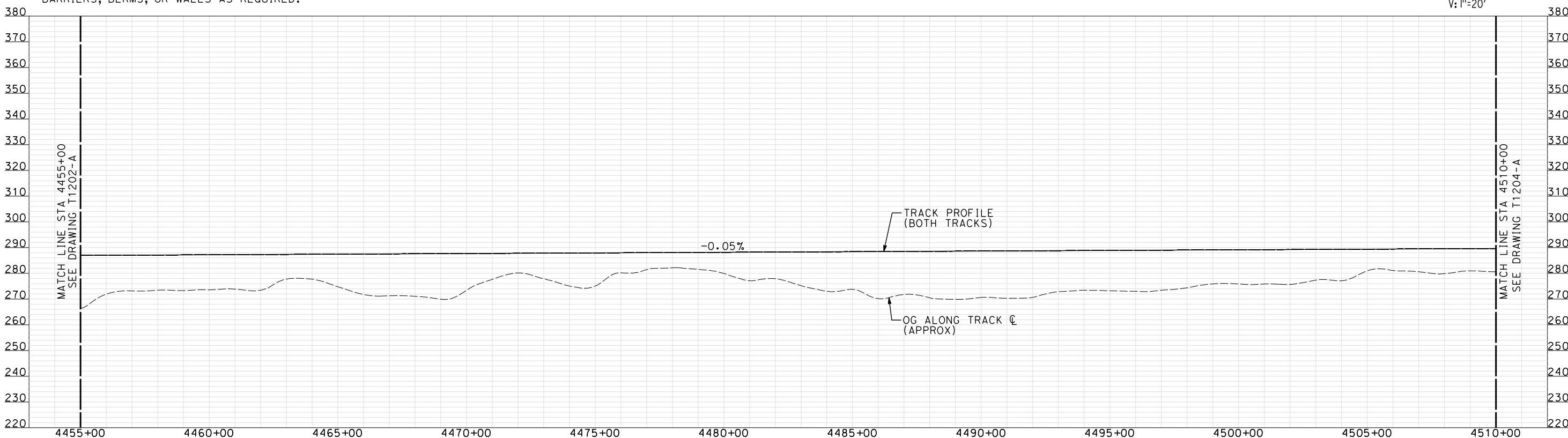
CONTRACT NO.	HSR-007
DRAWING NO.	T1202-A
SCALE	AS SHOWN
SHEET NO.	### OF ###



**NOTES:**

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

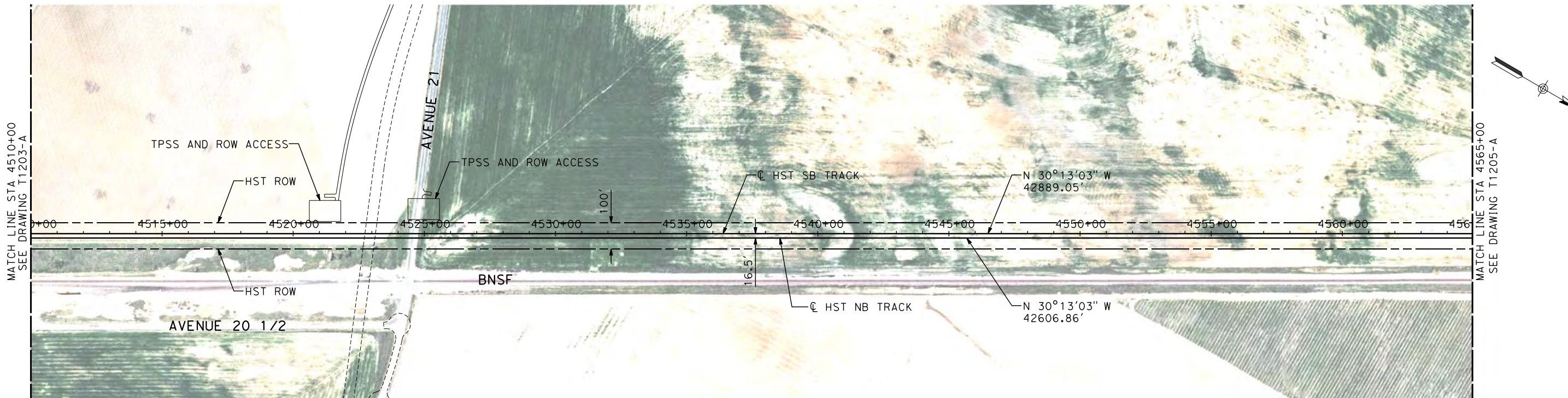
**RECORD SET  
15% DESIGN  
SUBMITTAL**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
MERCED TO FRESNO**

BNSF MERCED CONNECTION  
AVE 21 / AVE 24  
PLAN AND PROFILE  
STA 4455+00 TO STA 4510+00

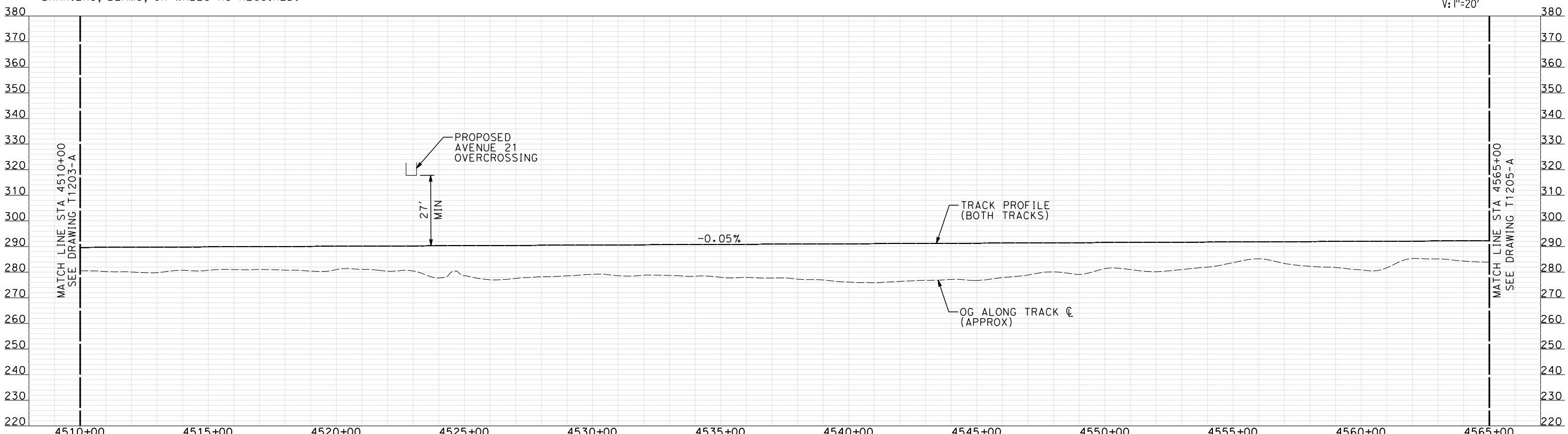
D E T A I L S  
CONTRACT NO.  
HSR06-007  
DRAWING NO.  
T1203-A  
SCALE  
AS SHOWN  
SHEET NO.  
### OF ###



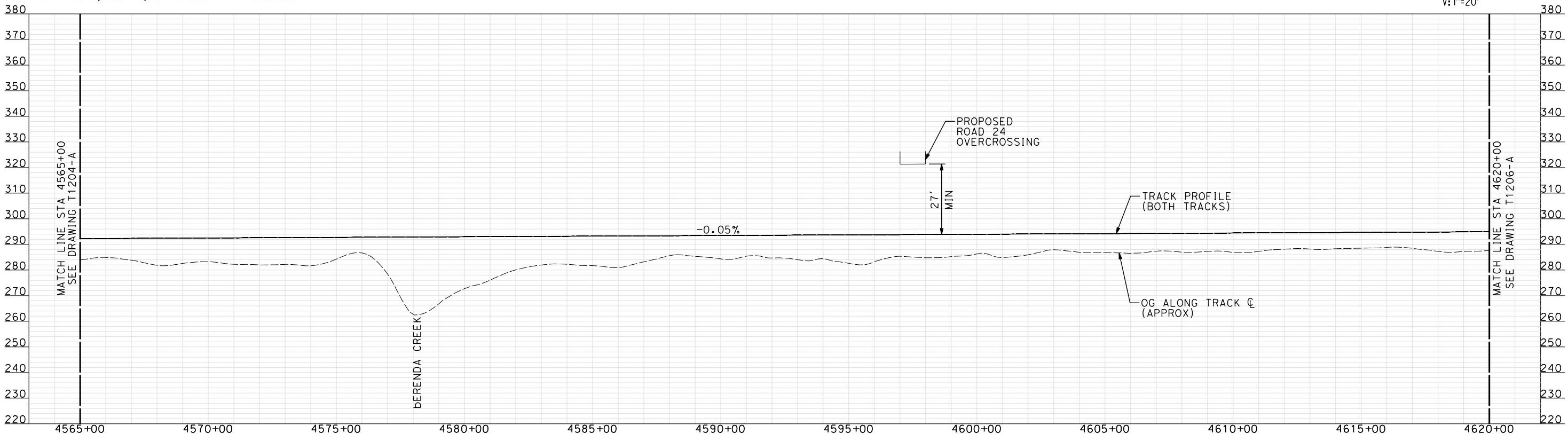
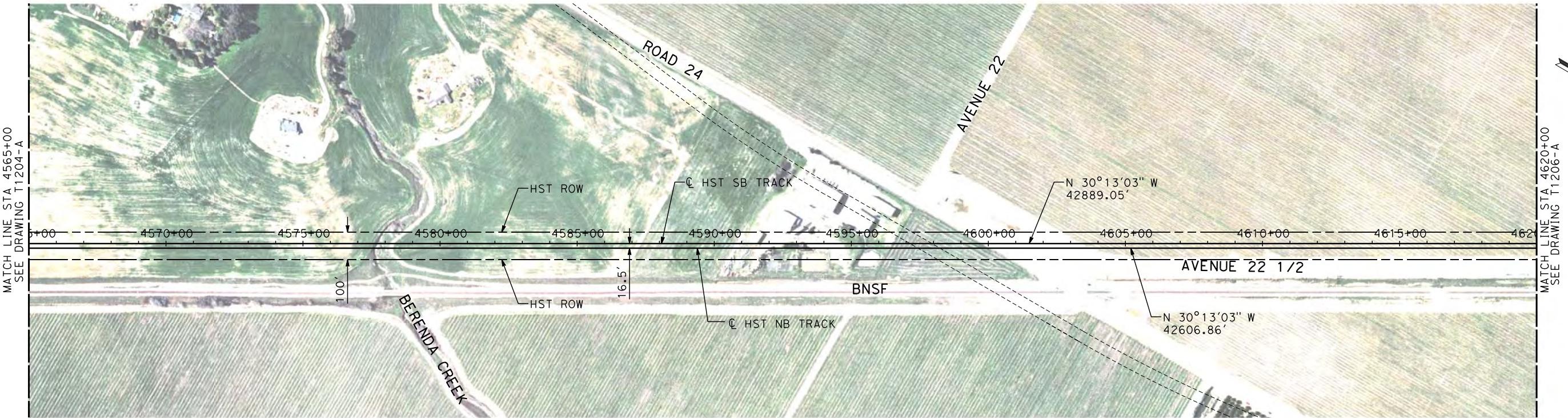
**NOTES:**

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAY



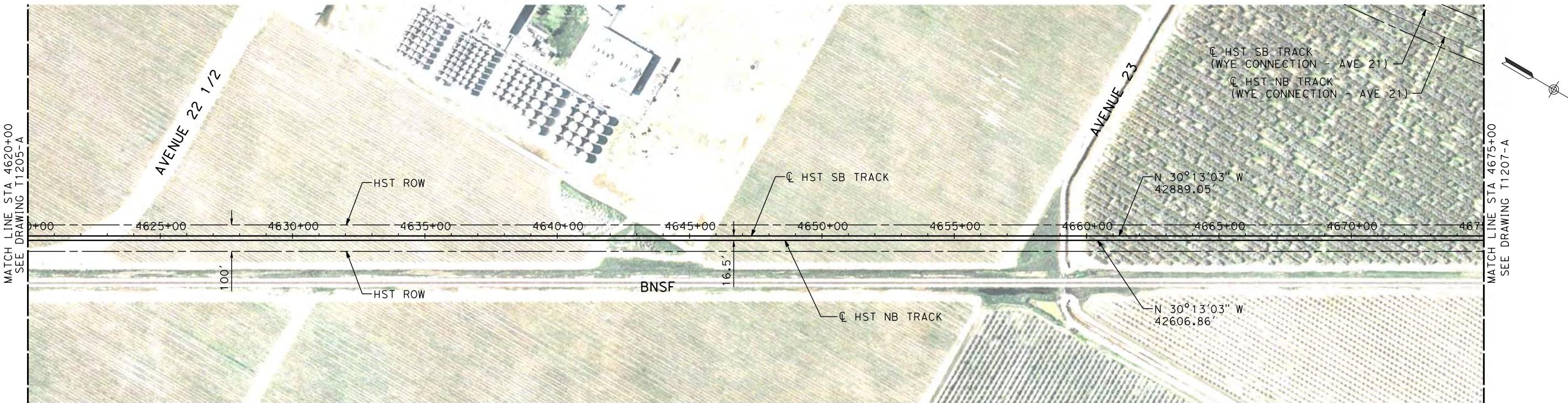
"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"



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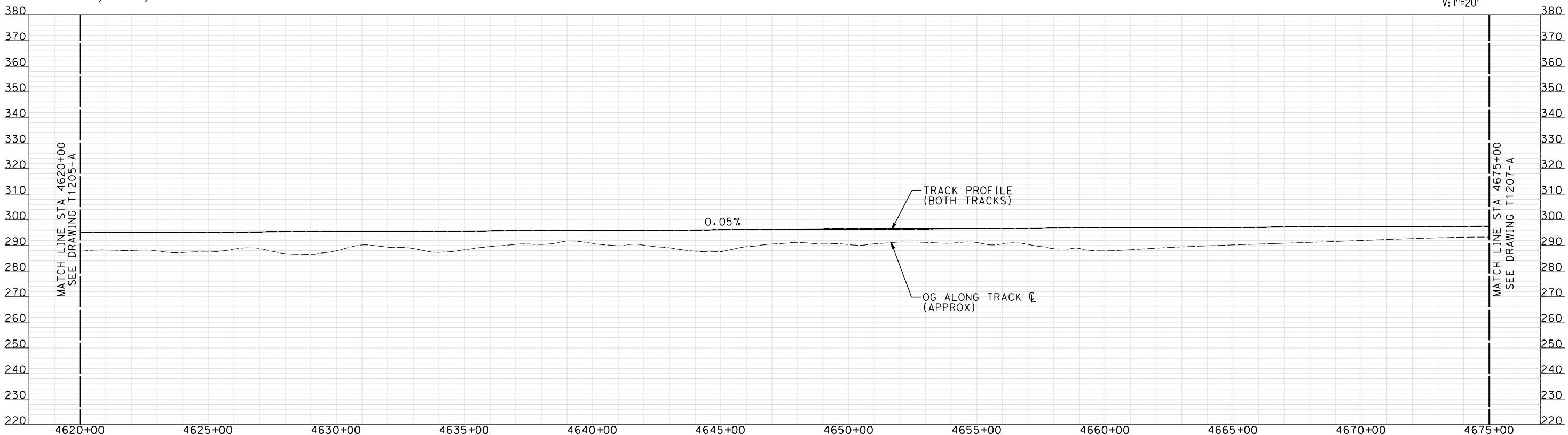
"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

					DESIGNED BY A. SHIELDS	RECORD SET 15% DESIGN SUBMITTAL	AECOM Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811	CH2MHILL	CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO	CONTRACT NO. HSR06-007
1	12/12/2011	AS			DRAWN BY H. SULLIVAN	NOT FOR CONSTRUCTION			BNSF MERCED CONNECTION AVE 21 / AVE 24 PLAN AND PROFILE	DRAWING NO. T1205-A
REV	DATE	BY	CHK	APP	CHECKED BY A. BOONE	IN CHARGE A. BOONE	DATE 07/27/2011		STA 4565+00 TO STA 4620+00	SCALE AS SHOWN
					DESCRIPTION					SHEET NO. ### OF ###



- NOTES:**
- ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
  - TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

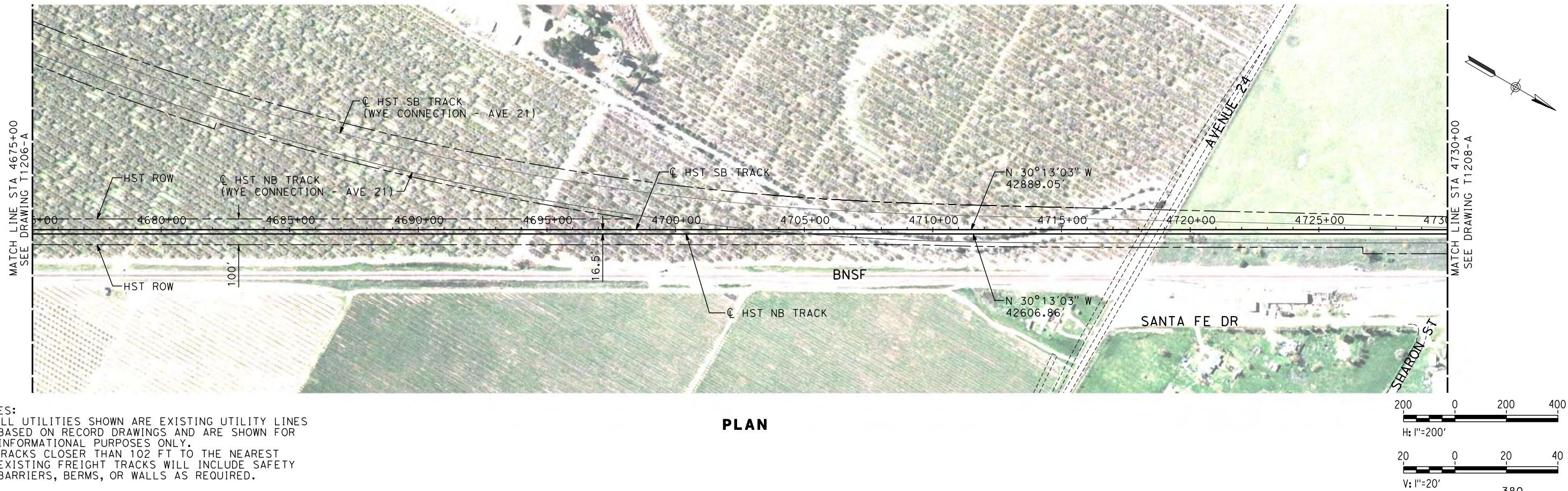
**PLAN**



**PROFILE**

"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

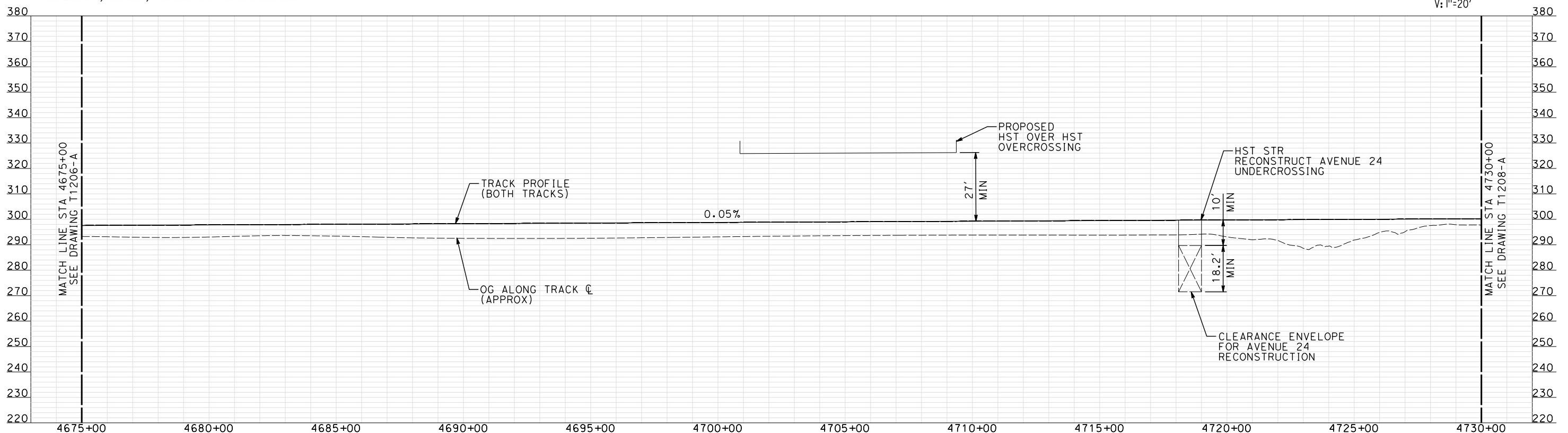
					DESIGNED BY A. SHIELDS	RECORD SET 15% DESIGN SUBMITTAL	AECOM Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811	CH2MHILL	CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO	CONTRACT NO. HSR06-007
					DRAWN BY H. SULLIVAN	NOT FOR CONSTRUCTION			BNSF MERCED CONNECTION AVE 21 / AVE 24 PLAN AND PROFILE STA 4620+00 TO STA 4675+00	DRAWING NO. T1206-A
					CHECKED BY A. BOONE					SCALE AS SHOWN
1	12/12/2011	AS			IN CHARGE A. BOONE					SHEET NO. ### OF ###
REV	DATE	BY	CHK	APP	DESCRIPTION	DATE 07/27/2011				



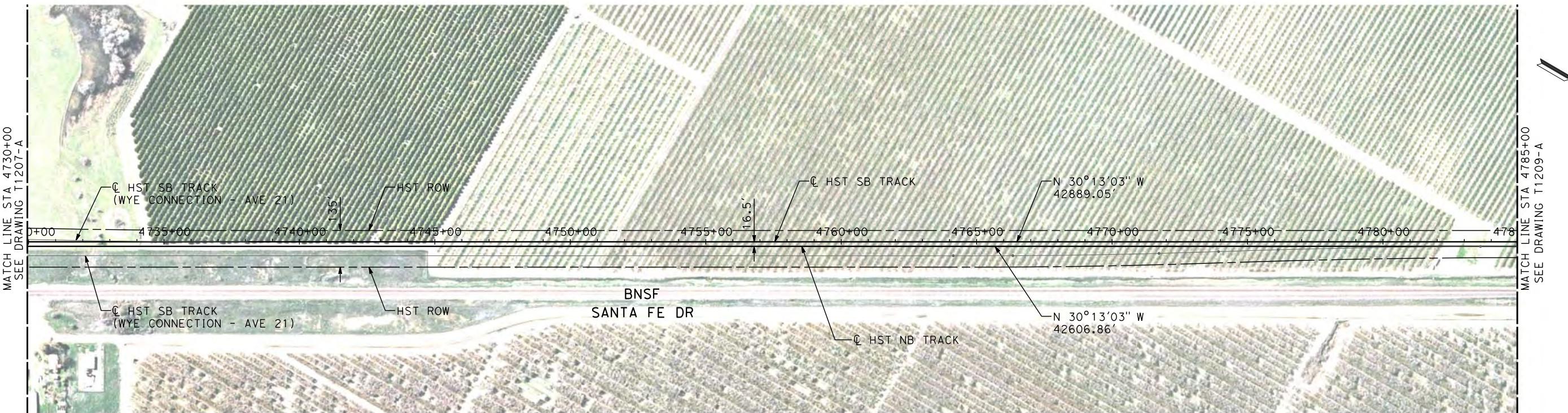
**NOTES:**

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLA

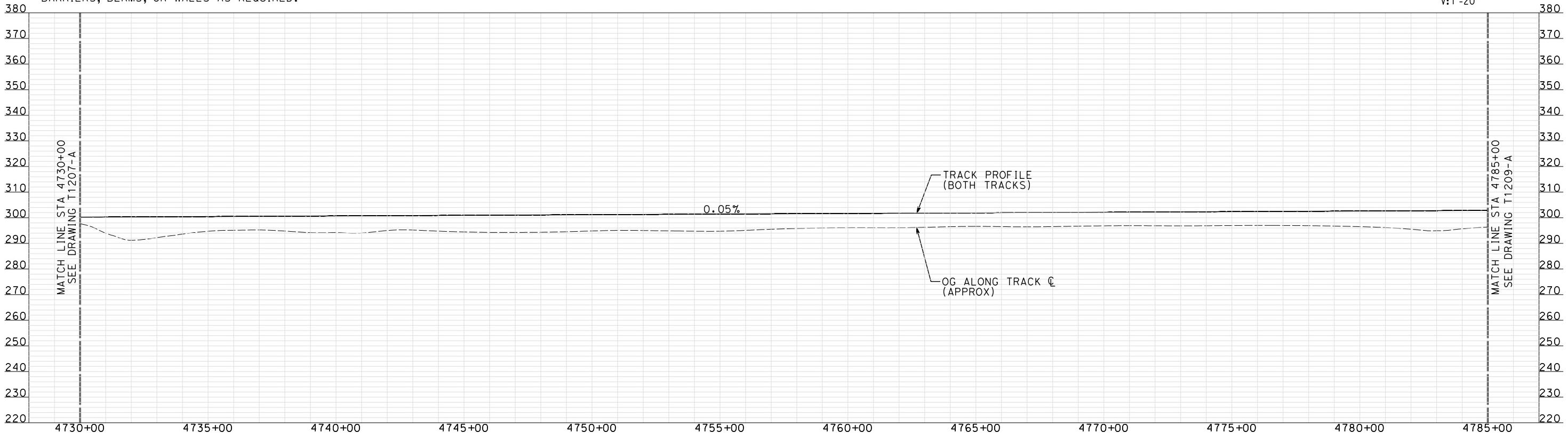
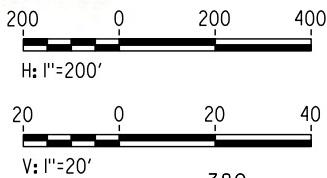


"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"



- NOTES:**
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
  2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

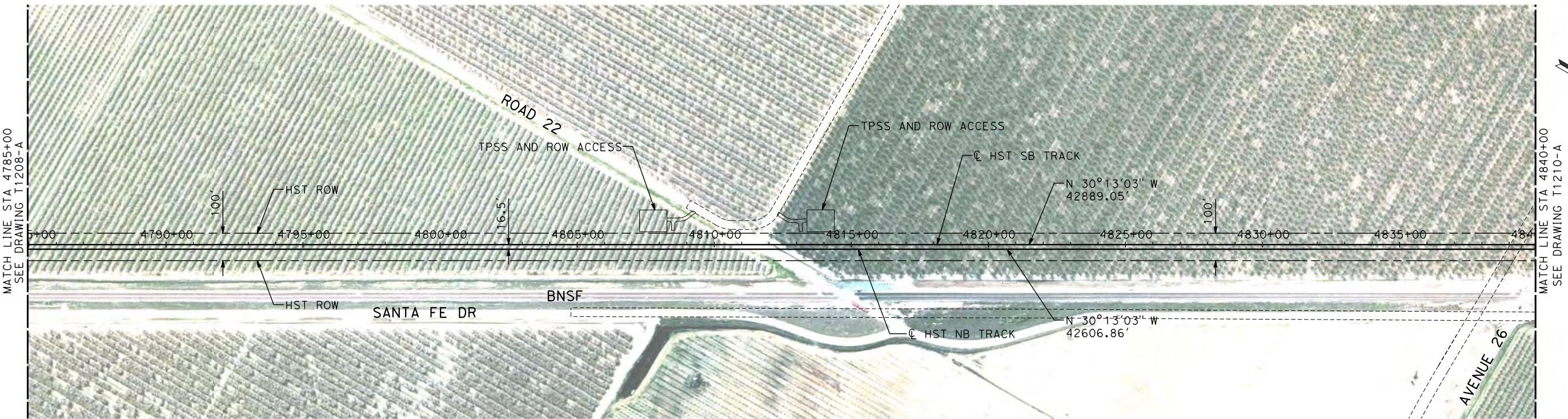
**PLAN**



**PROFILE**

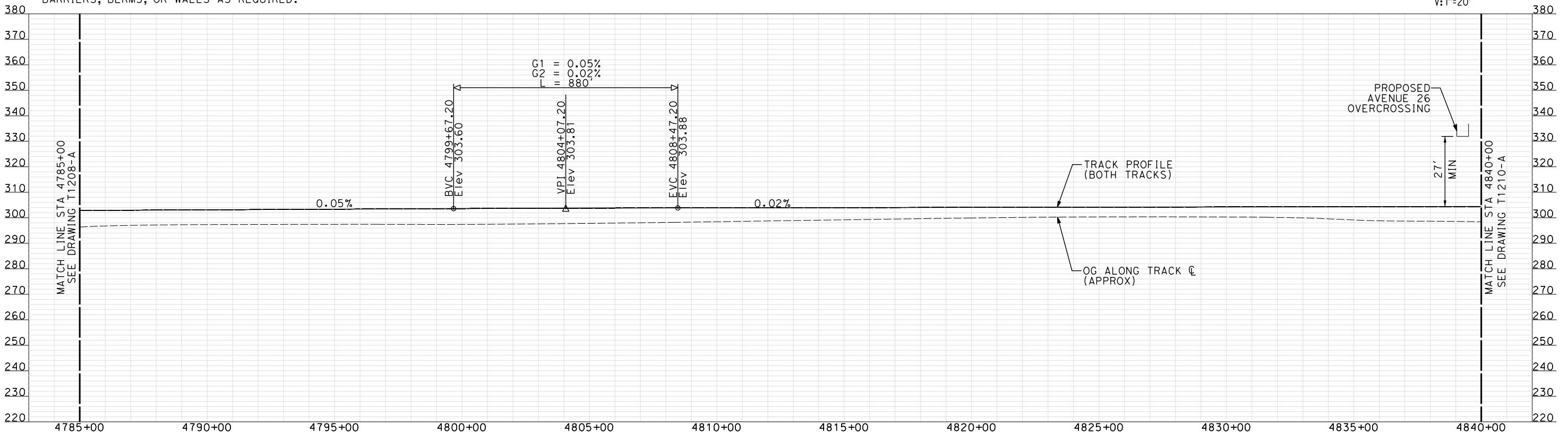
"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

shieldsa										DESIGNED BY A. SHIELDS	RECORD SET 15% DESIGN SUBMITTAL	AECOM Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811	CH2MHILL	CALIFORNIA HIGH-SPEED RAIL AUTHORITY	CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO	BNSF MERCED CONNECTION AVE 21 / AVE 24 PLAN AND PROFILE STA 4730+00 TO STA 4785+00	CONTRACT NO. HSR-007
1	12/12/2011	AS			TRACK REALIGNMENT	IN CHARGE A. BOONE	NOT FOR CONSTRUCTION								DRAWING NO. T1208-A		
REV	DATE	BY	CHK	APP	DESCRIPTION	DATE 07/27/2011									SCALE AS SHOWN		
															SHEET NO. ### OF ###		



- NOTES:**
- ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
  - TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

**PLAN**



**PROFILE**

"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

					DESIGNED BY A. SHIELDS
					DRAWN BY H. SULLIVAN
					CHECKED BY A. BOONE
					IN CHARGE A. BOONE
1	12/12/2011	AS			DATE 07/27/2011
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REV	DATE	BY	CHK	APP	DESCRIPTION

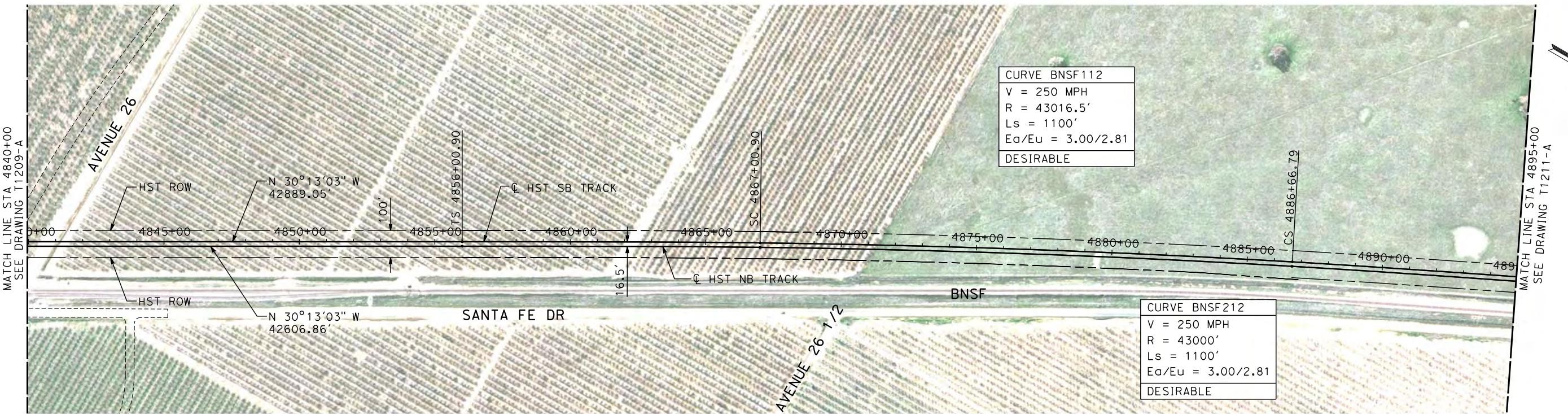
RECORD SET  
15% DESIGN  
SUBMITTAL  
**NOT FOR  
CONSTRUCTION**

**AECOM**  
Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811  
**CH2MHILL**



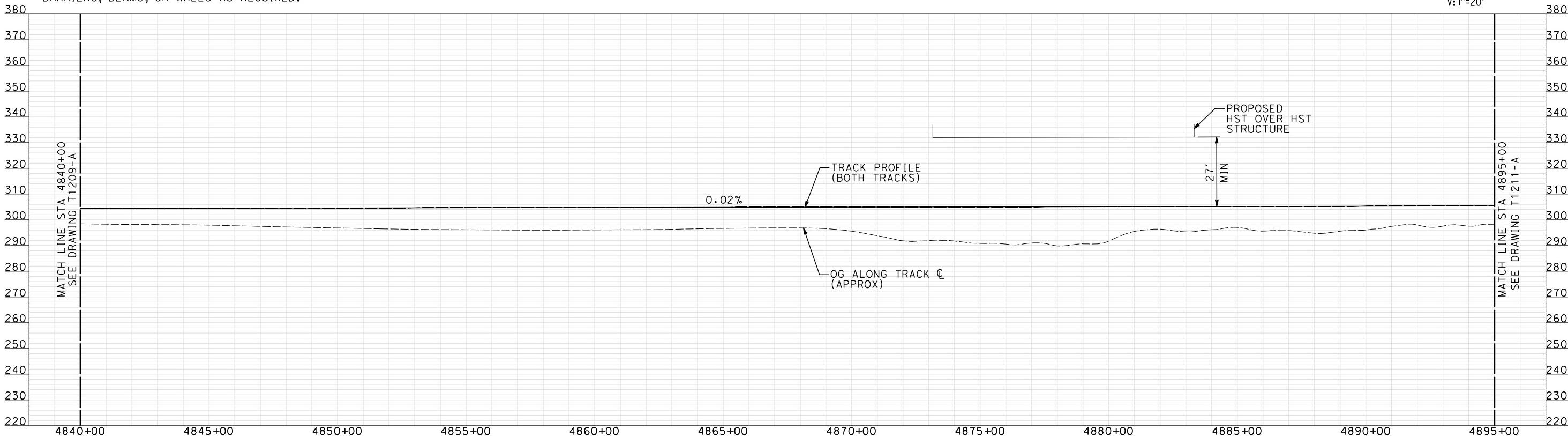
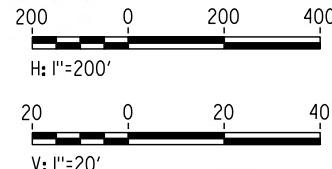
**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
MERCED TO FRESNO**  
BNSF MERCED CONNECTION  
AVE 21 / AVE 24  
PLAN AND PROFILE  
STA 4785+00 TO STA 4840+00

CONTRACT NO.  
HSR06-007  
DRAWING NO.  
T1209-A  
SCALE  
AS SHOWN  
SHEET NO.  
### OF ###



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  - TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

**PLAN**



"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

SHIELDSDRAWING T1210-A										CONTRACT NO.
										HSR06-007
										DRAWING NO.
										T1210-A
										SCALE
										AS SHOWN
										SHEET NO.
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					A. SHIELDS	RECORD SET	15% DESIGN	SUBMITTAL		CONTRACT NO.
					DRAWN BY					HSR06-007
					H. SULLIVAN					DRAWING NO.
					CHECKED BY					T1210-A
					A. BOONE					SCALE
					IN CHARGE					AS SHOWN
					A. BOONE					SHEET NO.
					DATE					### OF ###
					07/27/2011					

DESIGNED BY  
A. SHIELDS  
DRAWN BY  
H. SULLIVAN  
CHECKED BY  
A. BOONE  
IN CHARGE  
A. BOONE  
DATE  
07/27/2011

RECORD SET  
15% DESIGN  
SUBMITTAL  
**NOT FOR  
CONSTRUCTION**

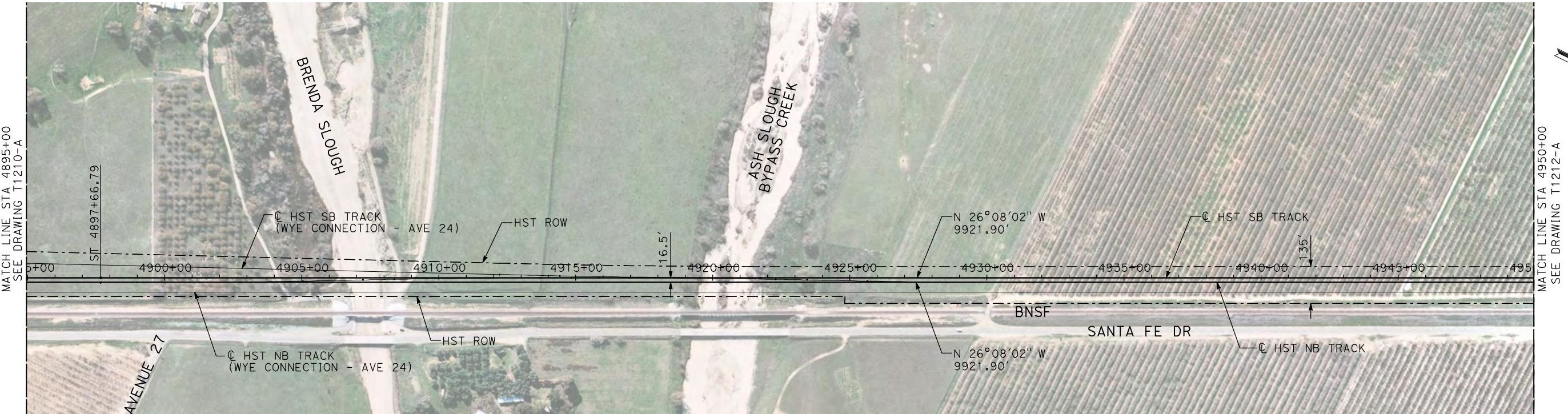
**AECOM**  
Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811

**CH2MHILL**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
MERCED TO FRESNO**  
BNSF MERCED CONNECTION  
AVE 21 / AVE 24  
PLAN AND PROFILE  
STA 4840+00 TO STA 4895+00

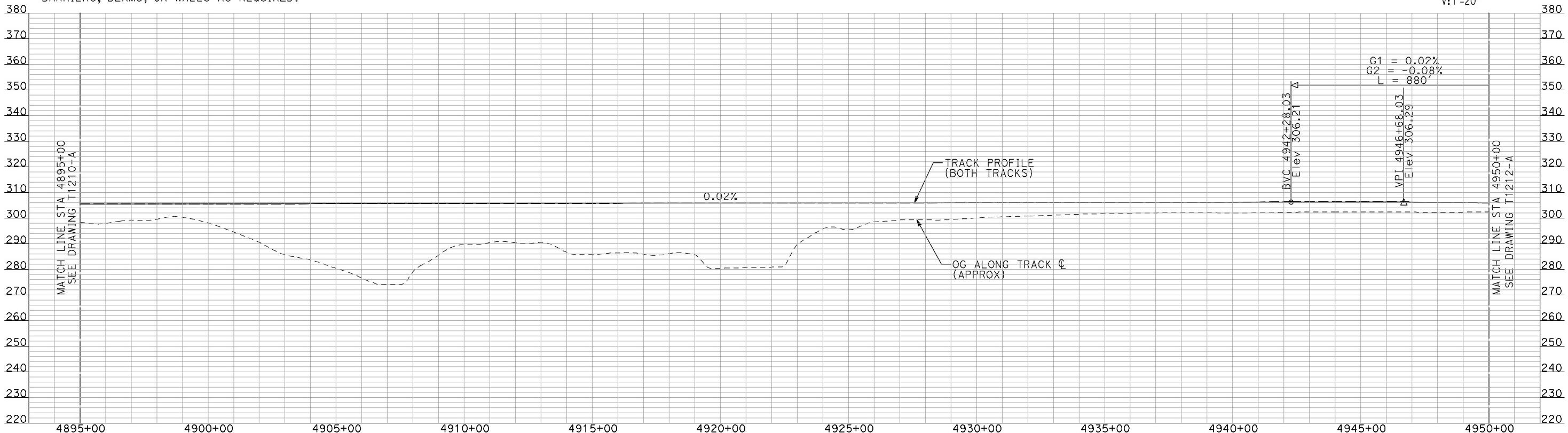
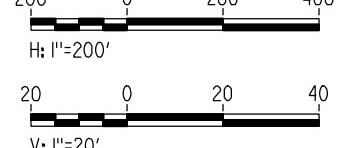
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DRAWING NO.  
T1210-A  
SCALE  
AS SHOWN  
SHEET NO.  
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- NOTES:
- ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
  - TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

**PLAN**

MATCH LINE STA 4950+00  
SEE DRAWING T1212-A



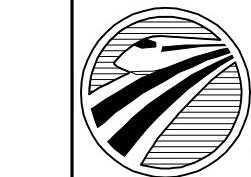
"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. SHIELDS  
DRAWN BY  
H. SULLIVAN  
CHECKED BY  
A. BOONE  
IN CHARGE  
A. BOONE  
DATE  
07/20/2011

RECORD SET  
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SUBMITTAL  
**NOT FOR  
CONSTRUCTION**

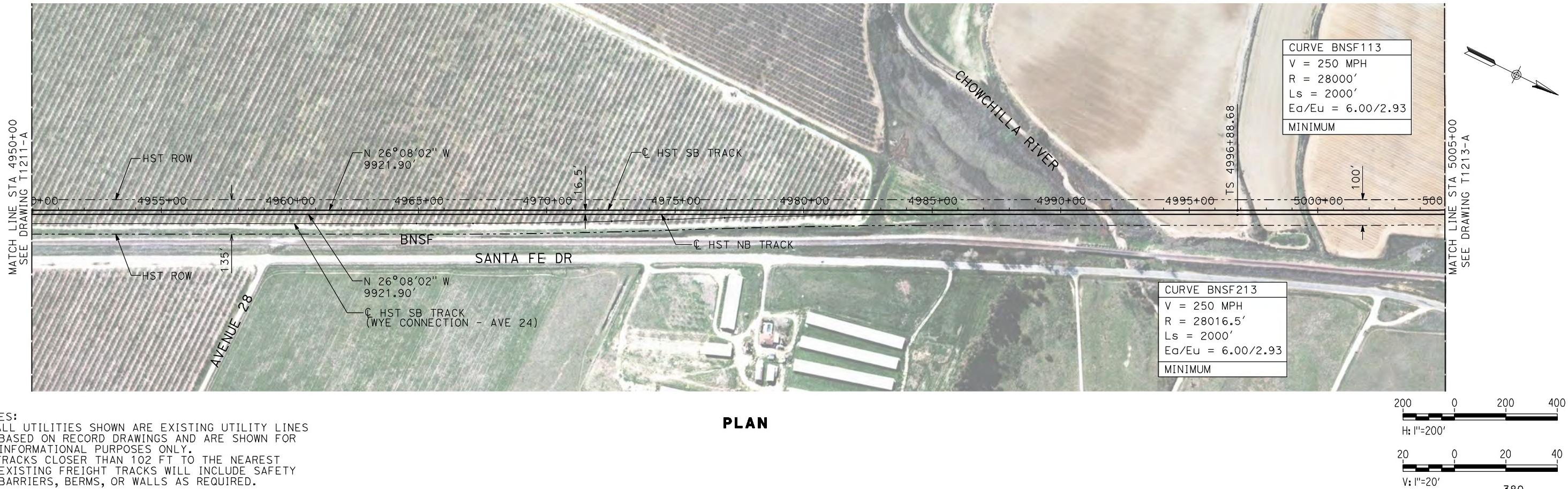
**AECOM**  
Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811  
**CH2MHILL**



CALIFORNIA  
HIGH-SPEED RAIL AUTHORITY

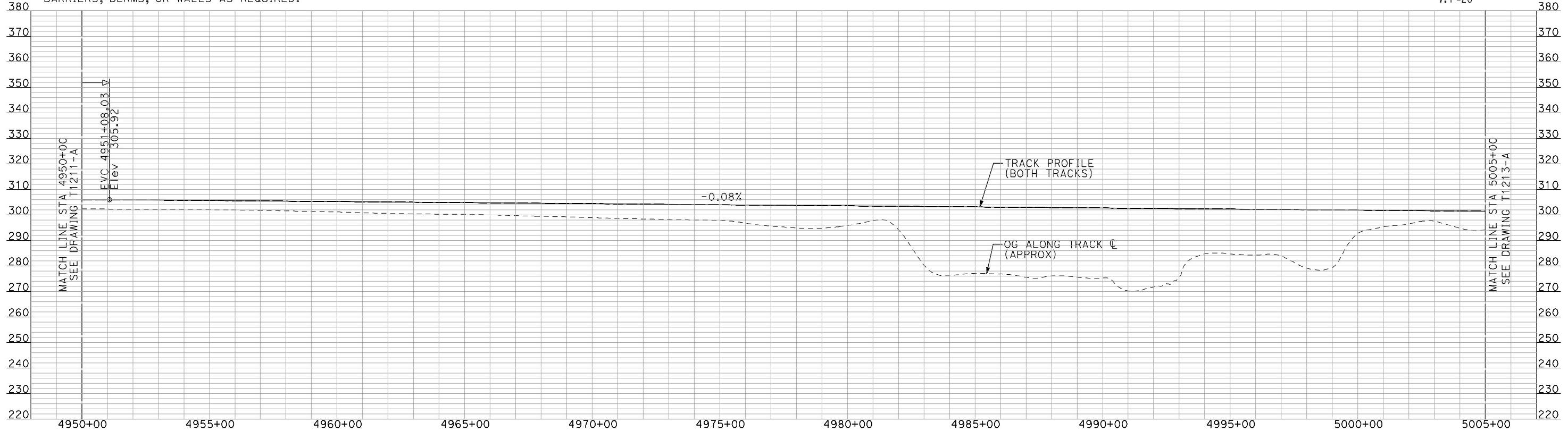
**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
MERCED TO FRESNO**  
BNSF MERCED CONNECTION  
AVE 21 / AVE 24  
PLAN AND PROFILE  
STA 4895+00 TO STA 4950+00

CONTRACT NO.  
HSR06-007  
DRAWING NO.  
T1211-A  
SCALE  
AS SHOWN  
SHEET NO.  
### OF ###



**NOTES:**

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2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

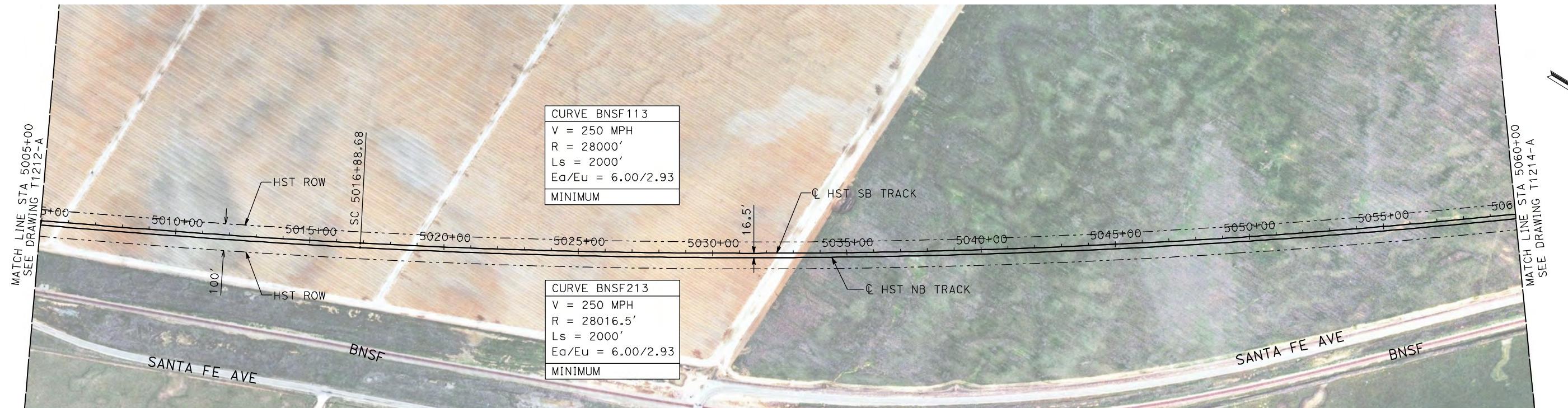
**RECORD SHEET  
15% DESIGN  
SUBMITTAL**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
MERCED TO FRESNO**

BNSF MERCED CONNECTION  
AVE 21 / AVE 24  
PLAN AND PROFILE  
STA 4950+00 TO STA 5005+00

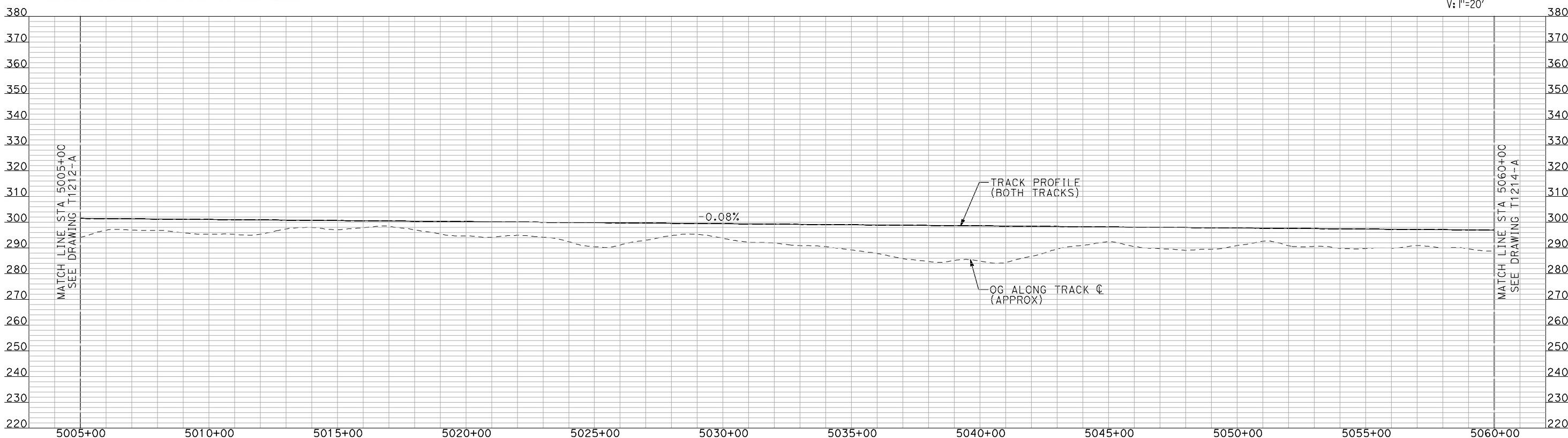
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HSR06-007  
DRAWING NO.  
T1212-A  
SCALE  
AS SHOWN  
SHEET NO.  
### OF ###



**NOTES:**

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PLAN



"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

**RECORD SET  
15% DESIGN  
SUBMITTAL**

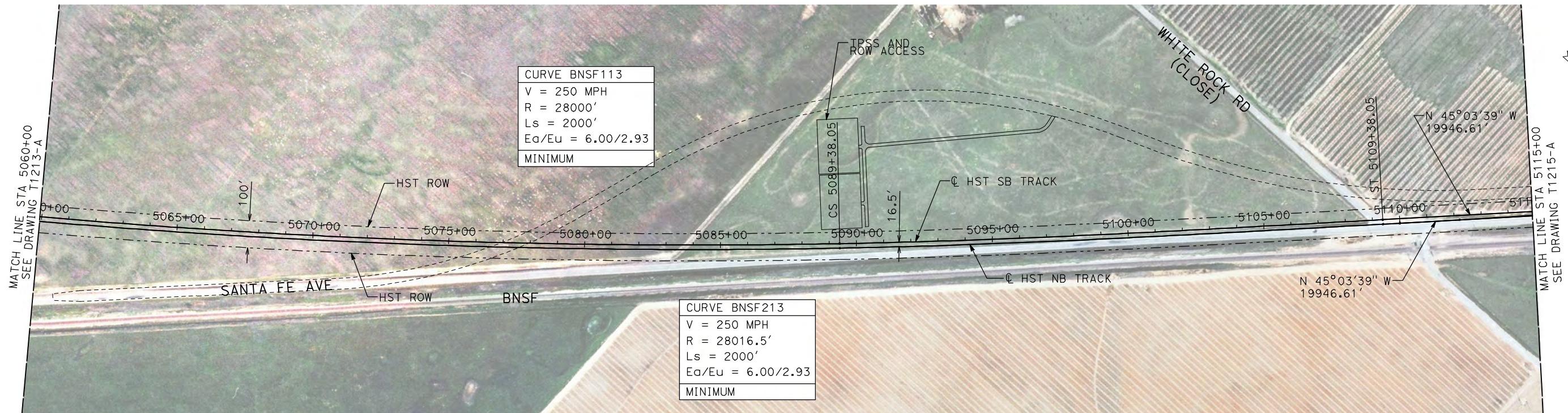


**CALIFORNIA  
HIGH-SPEED RAIL AUTHORITY**

# **CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO**

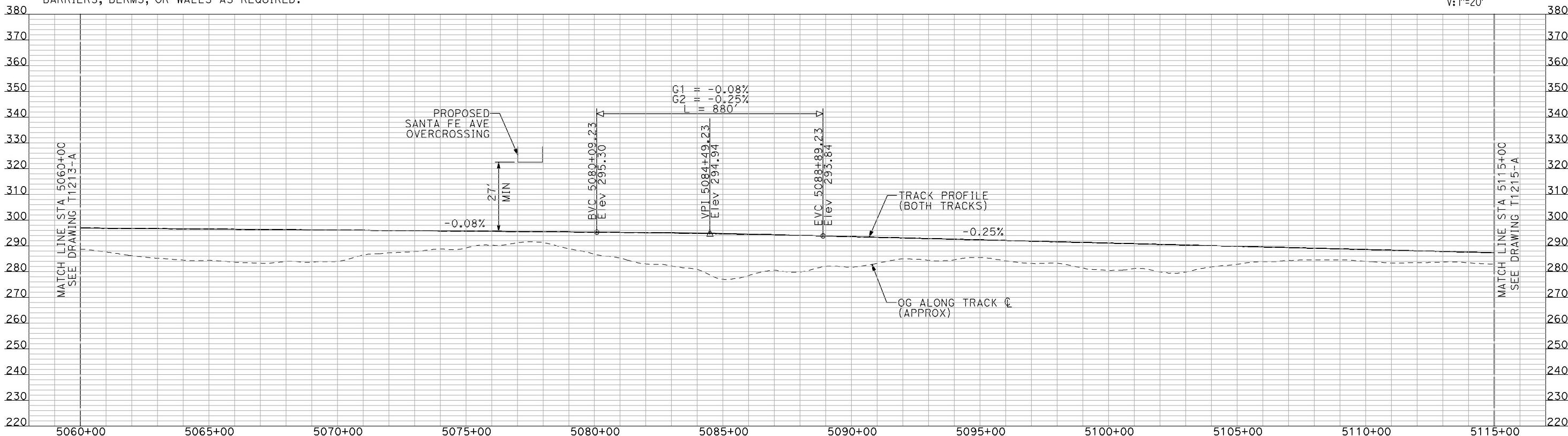
BNSF MERCED CONNECTION  
AVE 21 / AVE 24  
PLAN AND PROFILE  
STA 5005+00 TO STA 5060+

CONTRACT NO.  
HSR06-007  
DRAWING NO.  
T1213-A  
SCALE  
AS SHOWN  
SHEET NO.  
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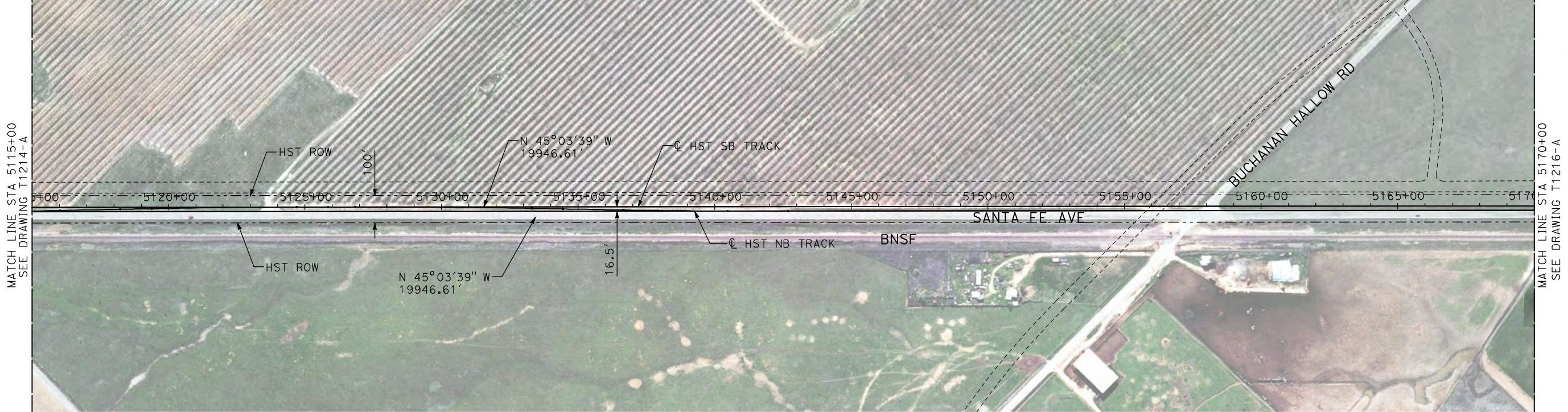
- NOTES:**
- ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
  - TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

**PLAN**



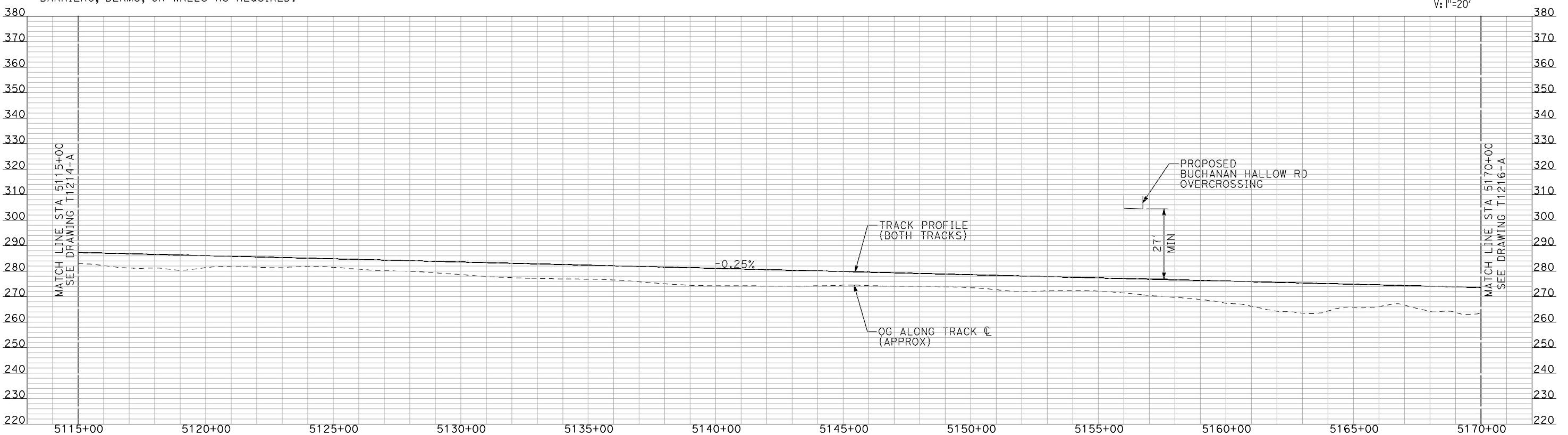
**PROFILE**

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"



- NOTES:**
- ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
  - TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

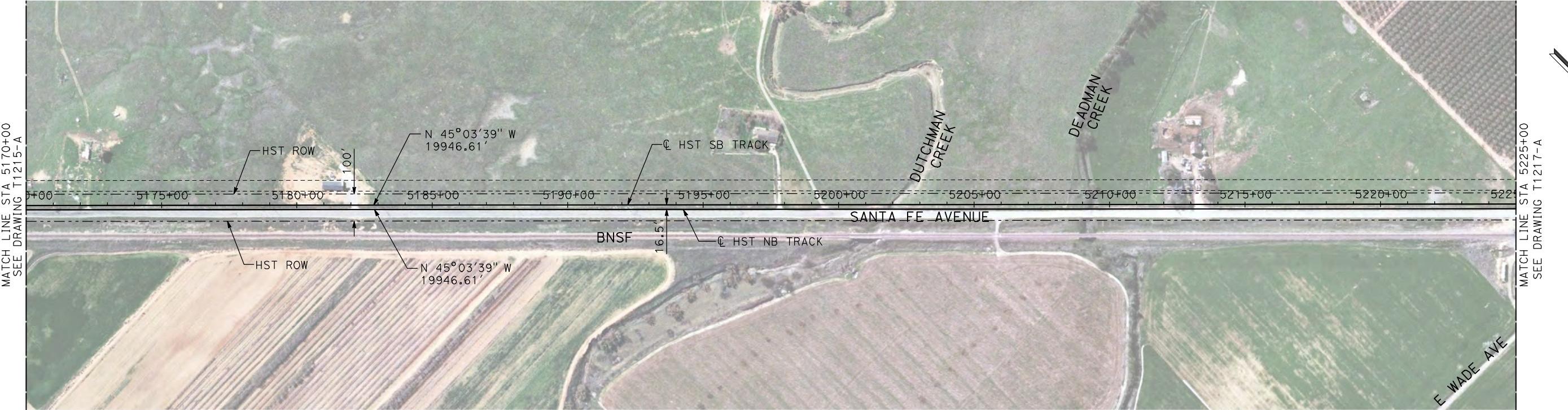
### PLAN



### PROFILE

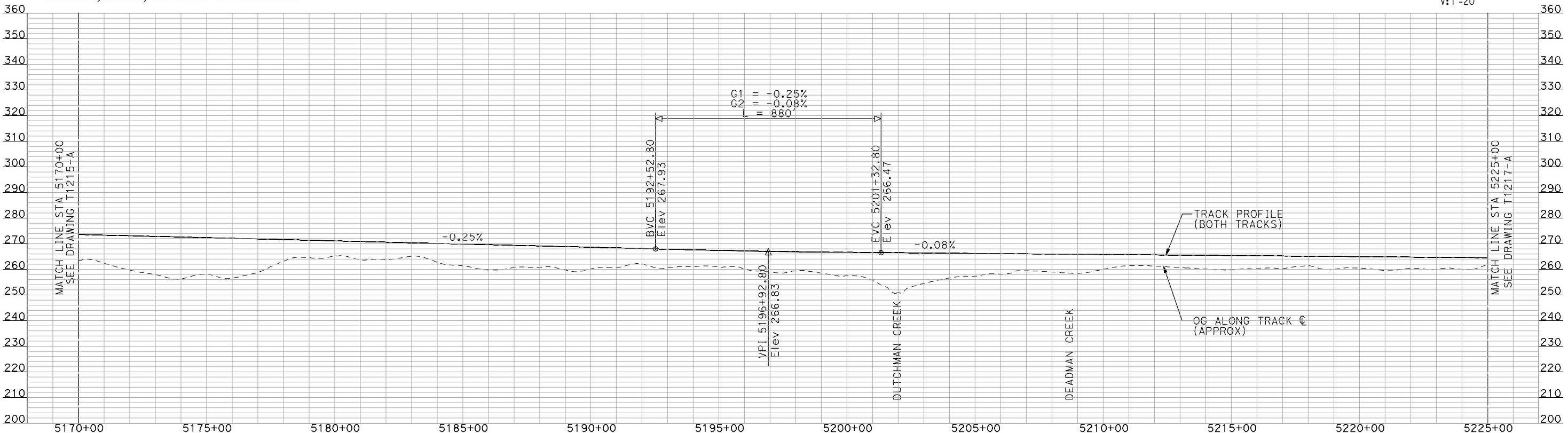
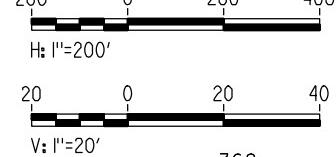
"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

DESIGNED BY A. SHIELDS	RECORD SET 15% DESIGN SUBMITTAL	AECOM Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811	CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO	CONTRACT NO. HSR06-007
DRAWN BY H. SULLIVAN	NOT FOR CONSTRUCTION	CH2MHILL	BNSF MERCED CONNECTION AVE 21 / AVE 24 PLAN AND PROFILE	DRAWING NO. T1215-A
CHECKED BY A. BOONE			STA 5115+00 TO STA 5170+00	SCALE AS SHOWN
IN CHARGE A. BOONE				SHEET NO. ### OF ###
DATE 07/20/2011				
REV DATE BY CHK APP	DESCRIPTION			



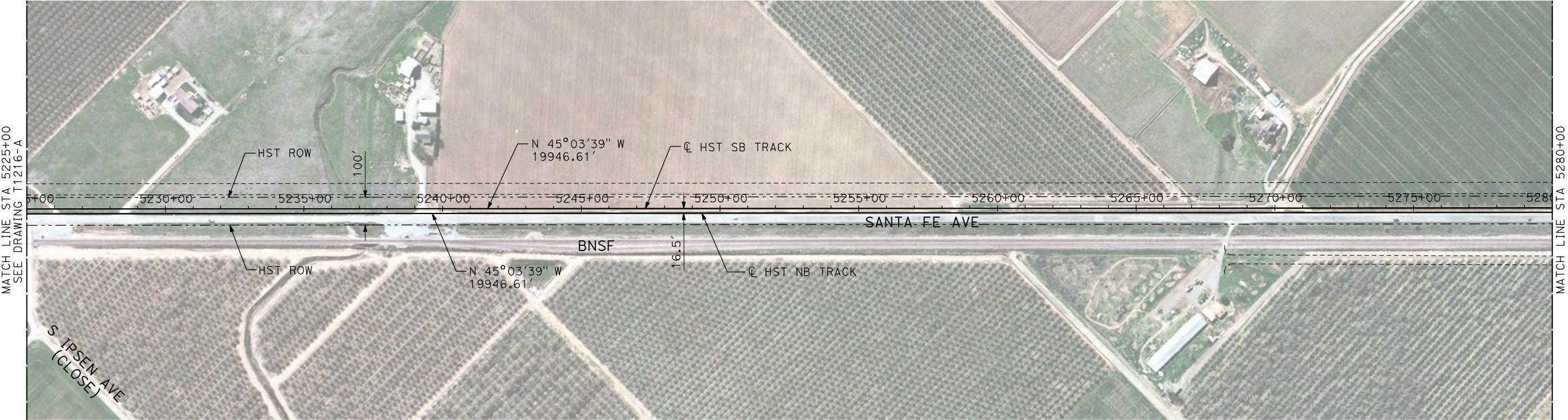
- NOTES:**
- ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
  - TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

### PLAN



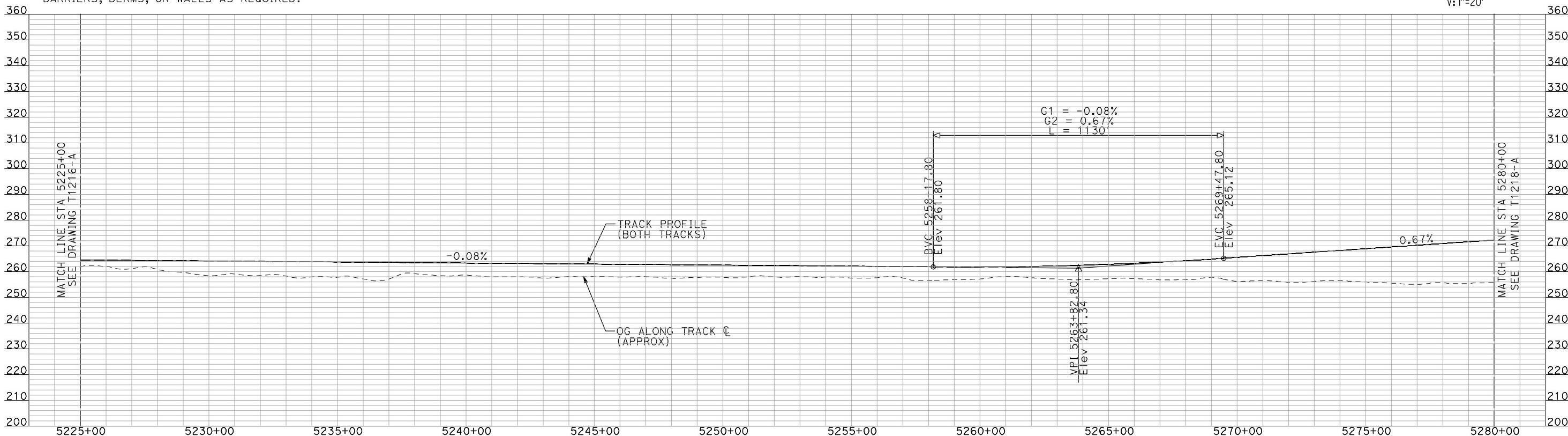
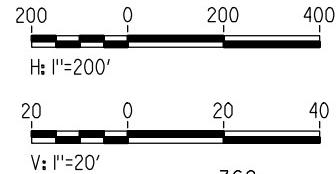
"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION	DESIGNED BY A. SHIELDS	DRAWN BY H. SULLIVAN	CHECKED BY A. BOONE	IN CHARGE A. BOONE	DATE 07/20/2011	RECORD SET 15% DESIGN SUBMITTAL	NOT FOR CONSTRUCTION	AECOM Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811	CH2MHILL	CALIFORNIA HIGH-SPEED RAIL AUTHORITY	CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO	BNSF MERCED CONNECTION AVE 21 / AVE 24 PLAN AND PROFILE STA 5170+00 TO STA 5225+00	CONTRACT NO. HSR06-007	DRAWING NO. T1216-A	SCALE AS SHOWN	SHEET NO. ### OF ###
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- NOTES:
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
  2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

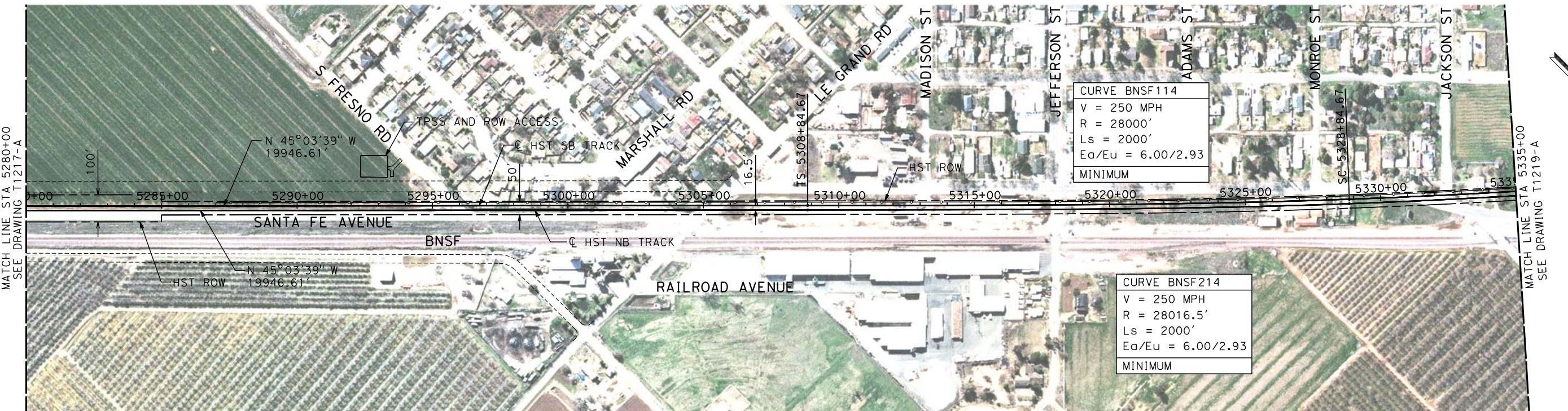
**PLAN**



**PROFILE**

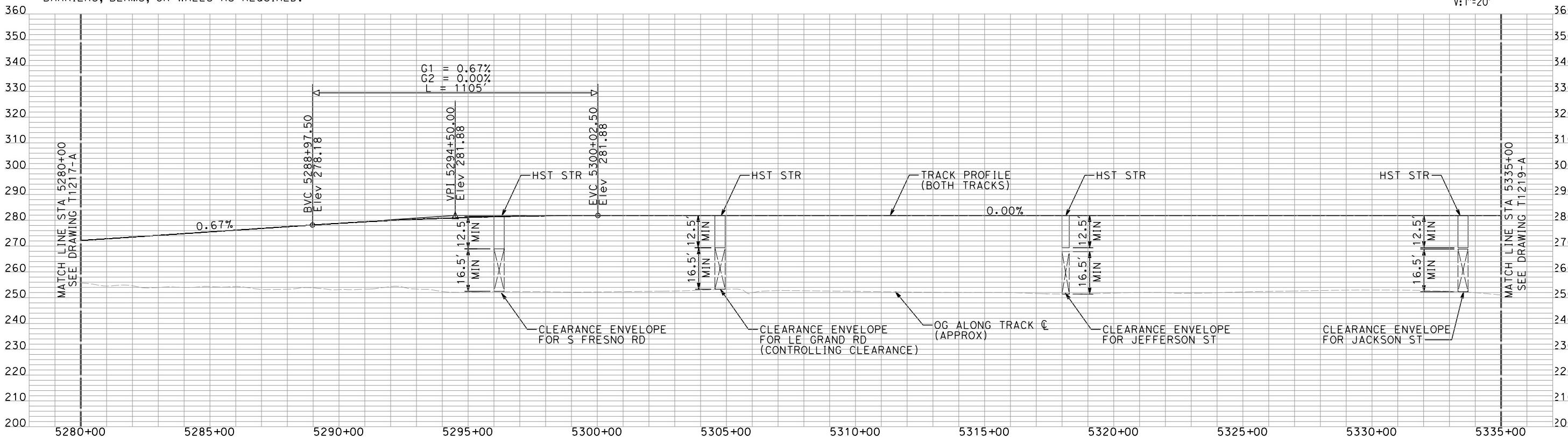
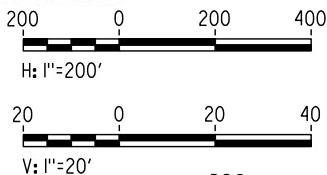
"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

DESIGNED BY A. SHIELDS	RECORD SET 15% DESIGN SUBMITTAL	AECOM Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811	CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO	CONTRACT NO. HSR-007
DRAWN BY H. SULLIVAN	NOT FOR CONSTRUCTION	CH2MHILL	BNSF MERCED CONNECTION AVE 21 / AVE 24 PLAN AND PROFILE	DRAWING NO. T1217-A
CHECKED BY A. BOONE			STA 5225+00 TO STA 5280+00	SCALE AS SHOWN
IN CHARGE A. BOONE				SHEET NO. ### OF ###
DATE 07/20/2011				
REV DATE BY CHK APP	DESCRIPTION			



- NOTES:**
- ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
  - TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

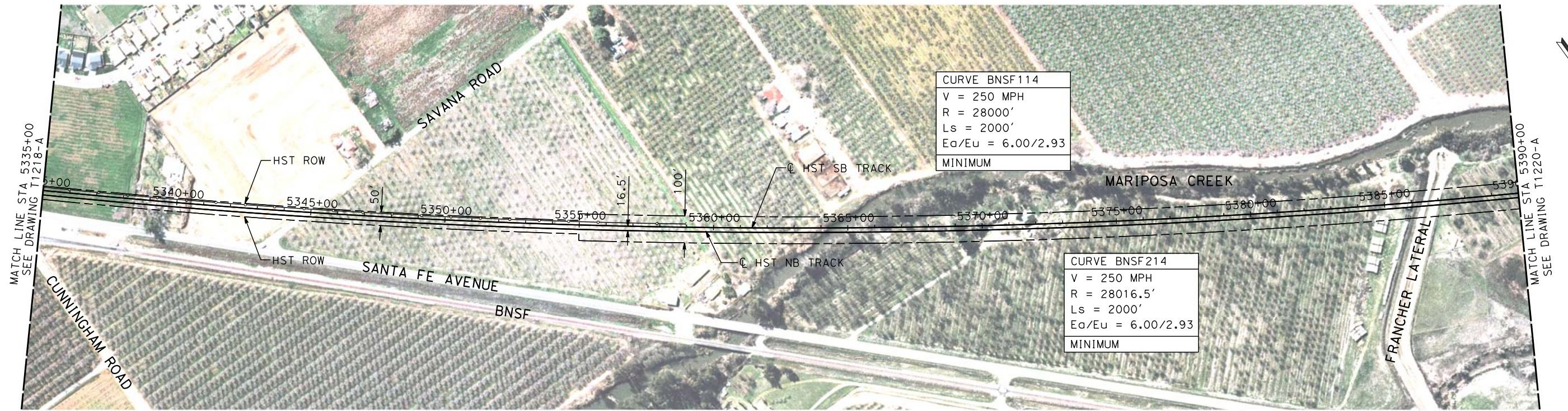
**PLAN**



**PROFILE**

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

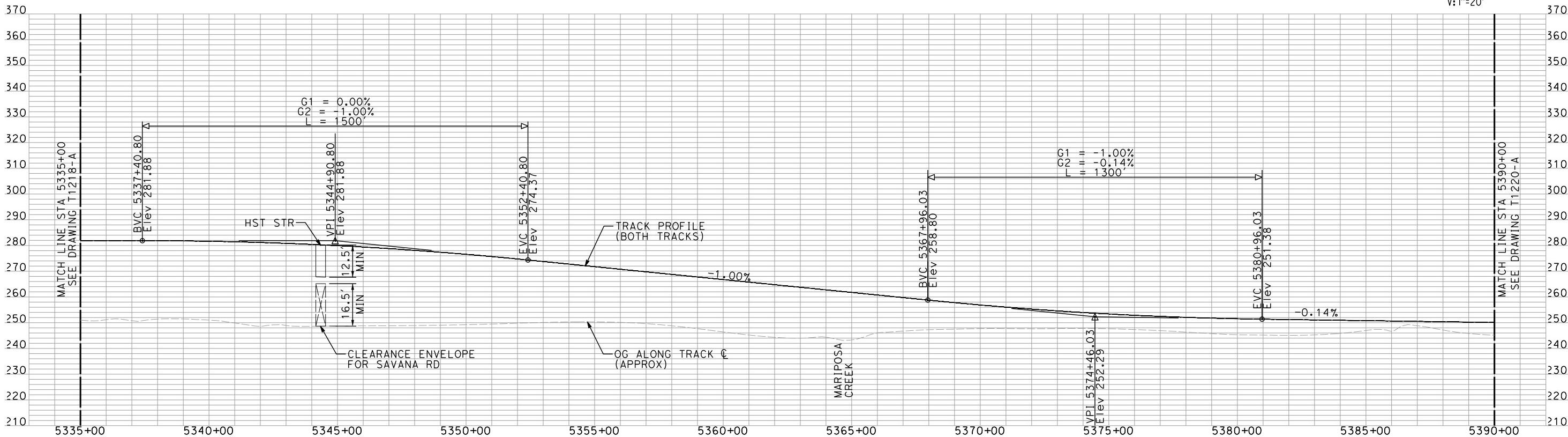
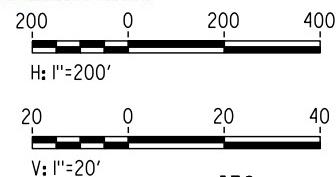
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1	02/17/12									REV DATE BY CHK APP	DESCRIPTION	DATE 07/27/2011					BNSF MERCED CONNECTION AVE 21 / AVE 24 PLAN AND PROFILE STA 5280+00 TO STA 5335+00	DRAWING NO. T1218-A		
																SCALE AS SHOWN	SHEET NO. ### OF ###			



NOTES:

- ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
- TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.
- FOR CONTROLLING CLEARANCE, SEE T1218-A.

**PLAN**



**PROFILE**

"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

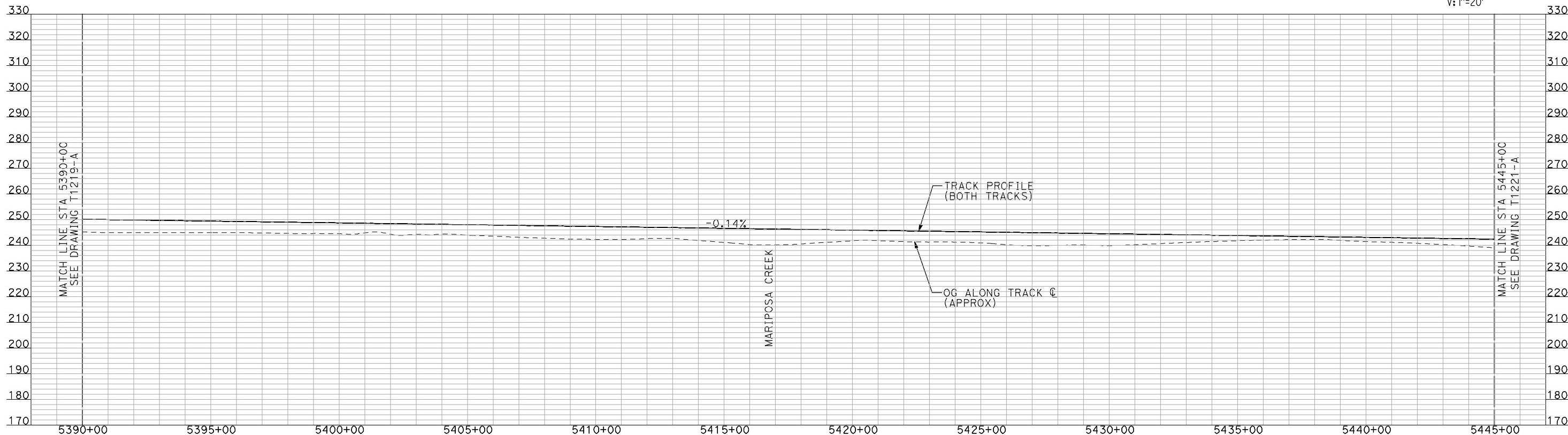
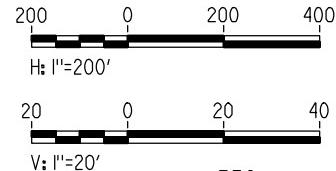
DESIGNED BY A. SHIELDS	RECORD SET 15% DESIGN SUBMITTAL	AECOM Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811	CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO	CONTRACT NO. HSR-007
DRAWN BY H. SULLIVAN	NOT FOR CONSTRUCTION	CH2MHILL	BNSF MERCED CONNECTION AVE 21 / AVE 24 PLAN AND PROFILE	DRAWING NO. T1219-A
CHECKED BY A. BOONE			STA 5335+00 TO STA 5390+00	SCALE AS SHOWN
IN CHARGE A. BOONE				SHEET NO. ### OF ###
DATE 07/27/2011				
REV DATE BY CHK APP	DESCRIPTION			



NOTES:

- ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
- TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

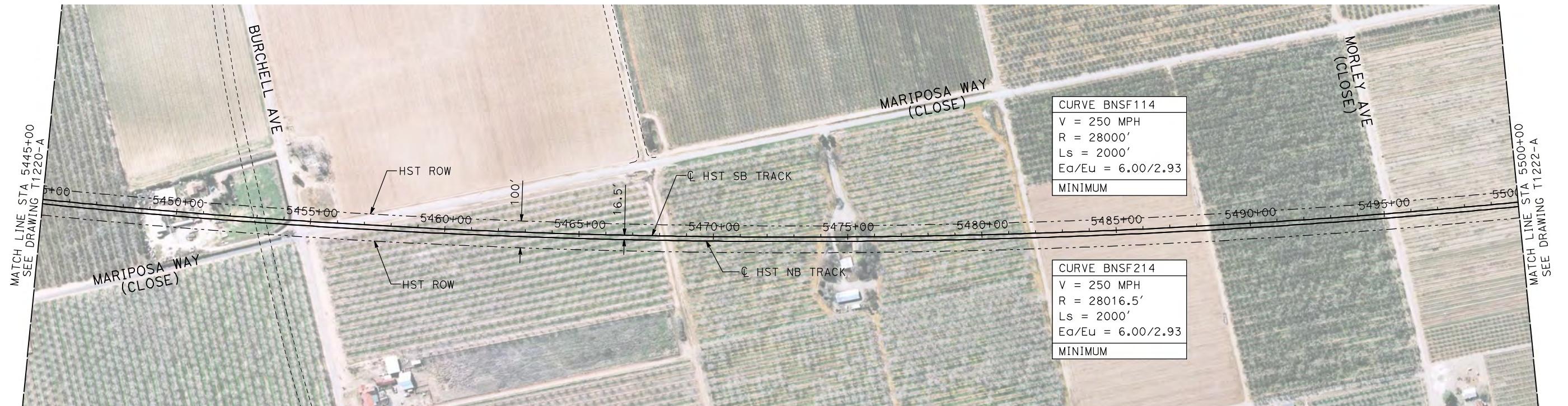
## PLAN



## PROFILE

"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

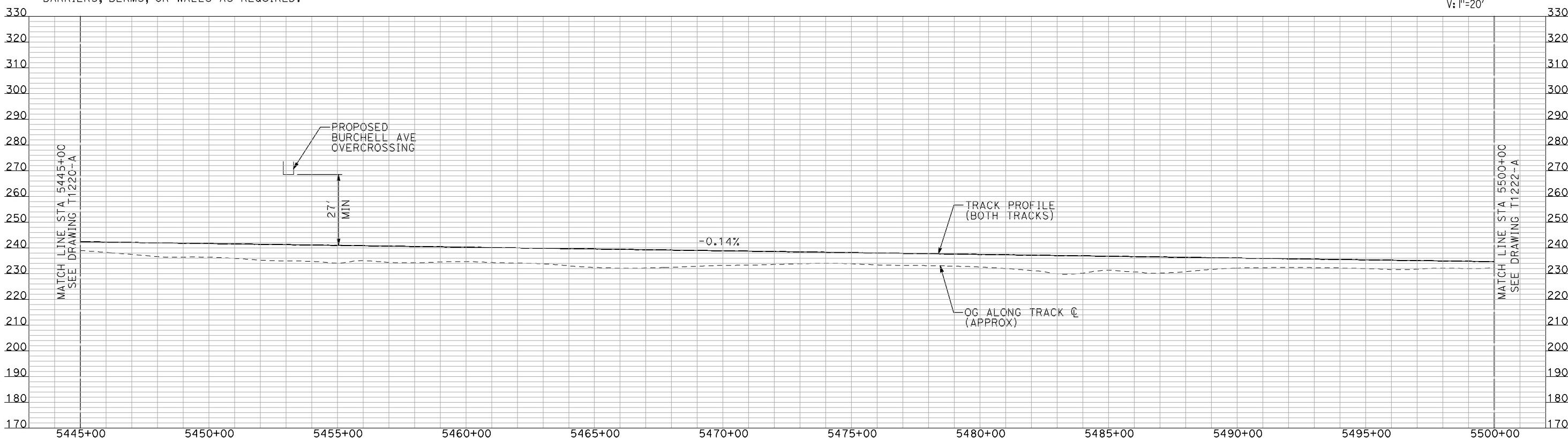
REV	DATE	BY	CHK	APP	DESCRIPTION	DESIGNED BY A. SHIELDS DRAWN BY H. SULLIVAN CHECKED BY A. BOONE IN CHARGE A. BOONE DATE 07/20/2011	RECORD SET 15% DESIGN SUBMITTAL  NOT FOR CONSTRUCTION	AECOM Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811  CH2MHILL	CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO  BNSF MERCED CONNECTION AVE 21 / AVE 24 PLAN AND PROFILE STA 5390+00 TO STA 5445+00	CONTRACT NO. HSR-007 DRAWING NO. T1220-A SCALE AS SHOWN SHEET NO. ### OF ###
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**NOTES:**

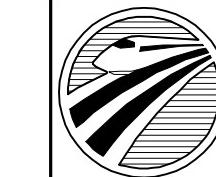
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

**RECORD SHEET  
15% DESIGN  
SUBMITTAL  
  
NOT FOR  
CONSTRUCTION**



CALIFORNIA  
HIGH-SPEED RAIL AUTHORITY

# **CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCEZ TO FRESNO**

BNSF MERCED CONNECTION  
AVE 21 / AVE 24  
PLAN AND PROFILE  
STA 5445+00 TO STA 5500+

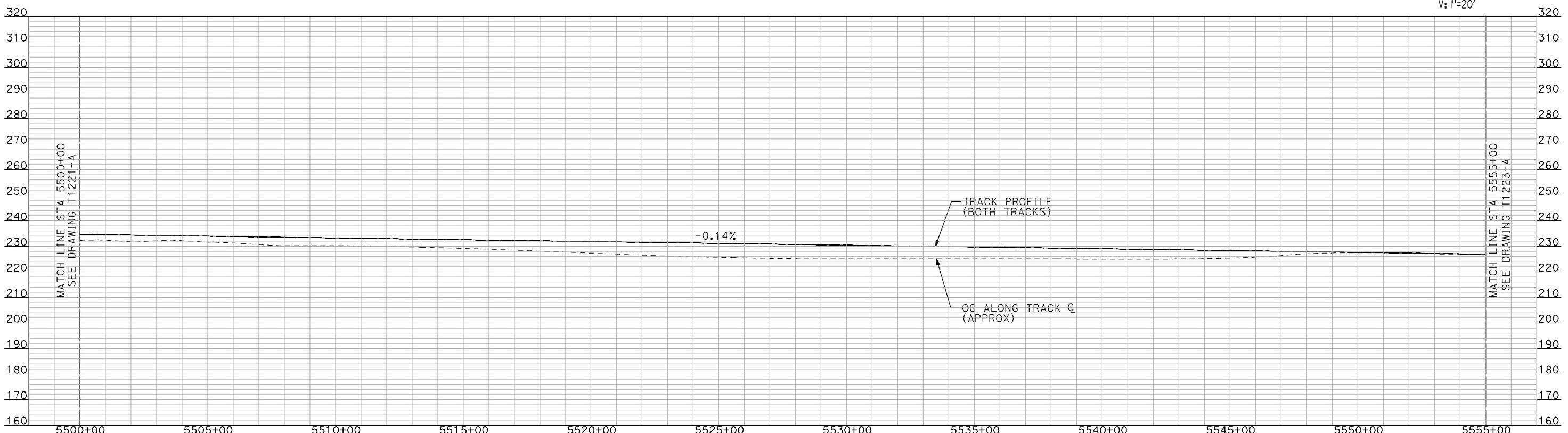
CONTRACT NO.  
HSR06-007  
DRAWING NO.  
T1221-A  
SCALE  
AS SHOWN  
SHEET NO.  
### OF ###



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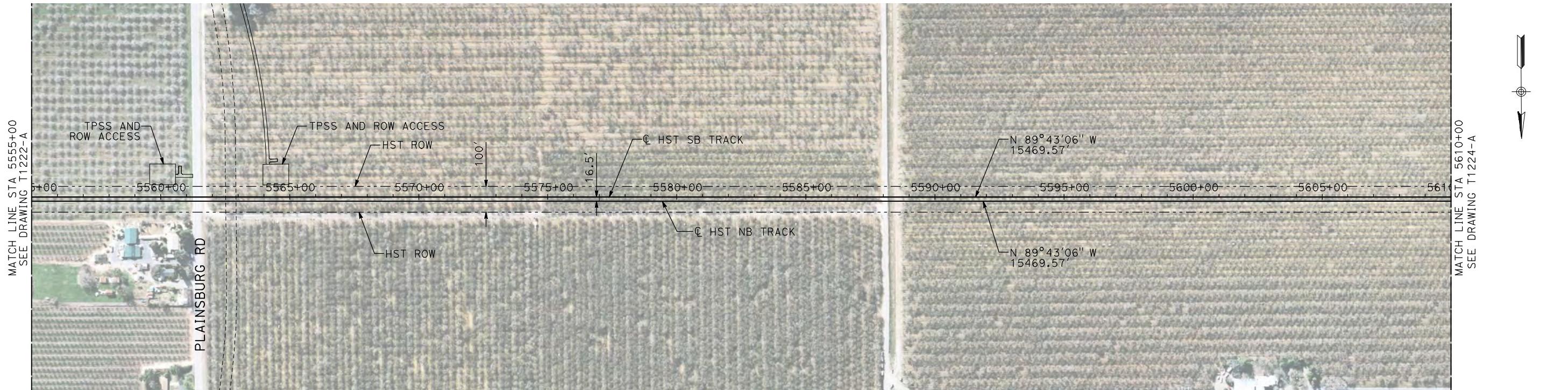
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

## **PLAN**



"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

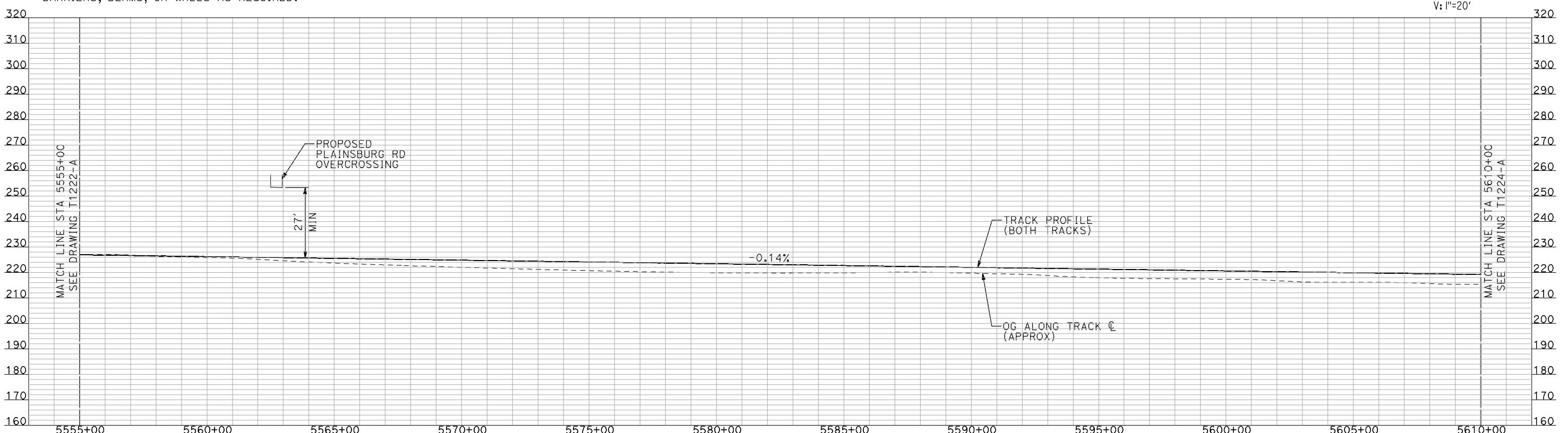
7/21									PROFILE		TYPICAL SECTION LIMITS AND DETAILS							
macnaboe	<p>DESIGNED BY A. SHIELDS DRAWN BY H. SULLIVAN CHECKED BY A. BOONE IN CHARGE A. BOONE DATE 07/20/2011</p>								<b>RECORD SET 15% DESIGN SUBMITTAL</b>  <b>NOT FOR CONSTRUCTION</b>	 AECOM <small>Technical Services, Inc.</small> 2020 L Street, Suite 300 Sacramento, CA 95811   CH2MHILL	 <b>CALIFORNIA</b> <small>HIGH-SPEED RAIL AUTHORITY</small>	<b>CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO</b> BNSF MERCED CONNECTION AVE 21 / AVE 24 PLAN AND PROFILE STA 5500+00 TO STA 5555+00						CONTRACT NO. HSR06-007  DRAWING NO. T1222-A  SCALE AS SHOWN  SHEET NO. #### OF ####
	REV	DATE	BY	CHK	APP	DESCRIPTION												



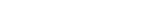
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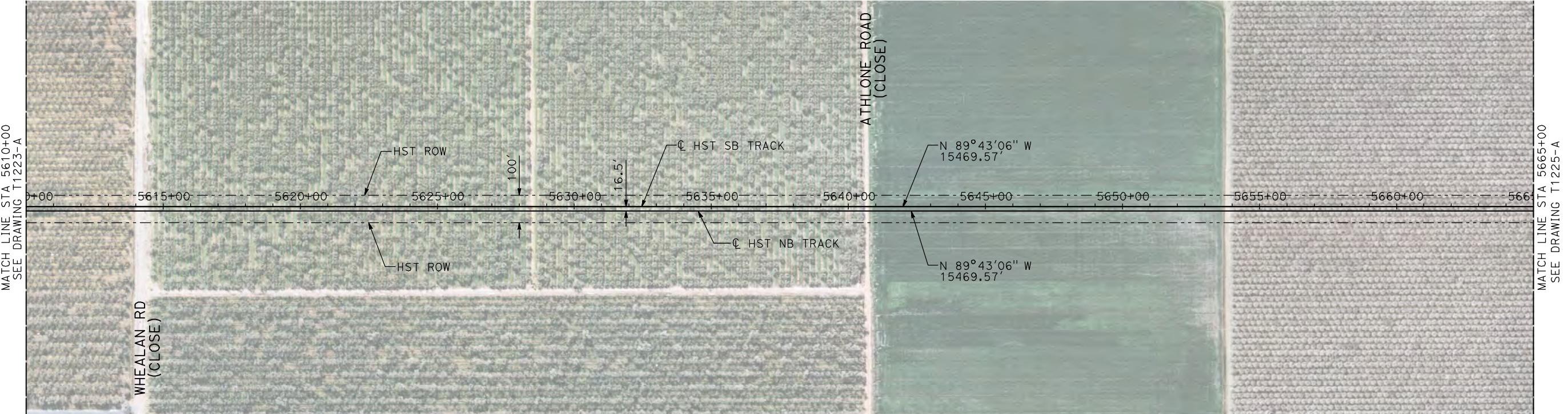
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



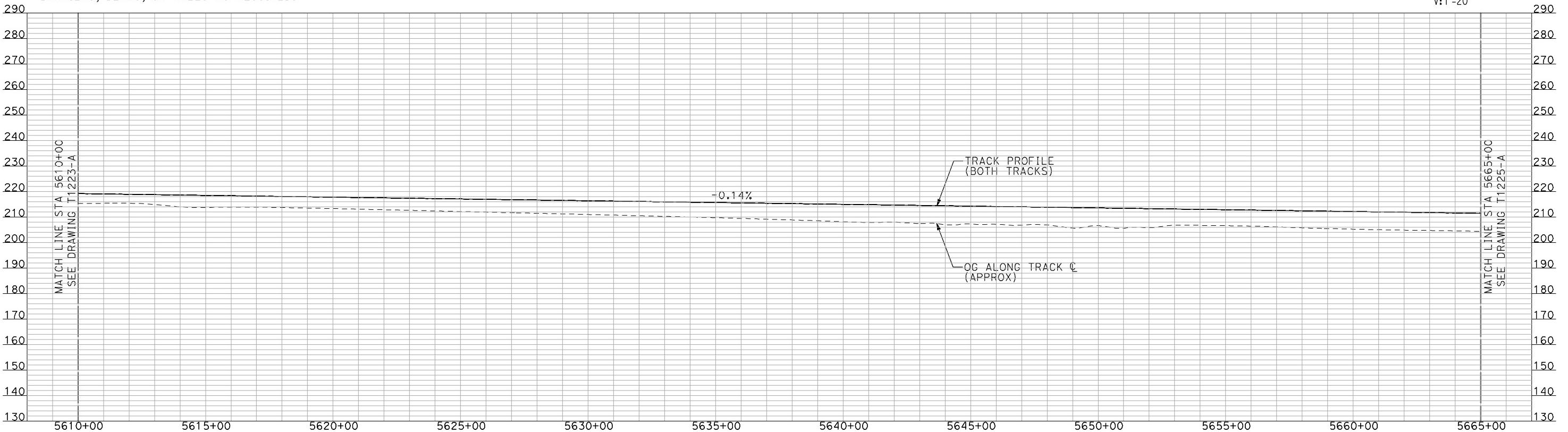
"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

7/21 machadoe	PROFILE								TYPICAL SECTION LIMITS AND DETAILS						
					DESIGNED BY A. SHIELDS		RECORD SET 15% DESIGN SUBMITTAL	<b>AECOM</b> Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811		 <b>CALIFORNIA</b> HIGH-SPEED RAIL AUTHORITY	<b>CALIFORNIA HIGH-SPEED TRAIN PROJECT</b> <b>MERCED TO FRESNO</b>				CONTRACT NO. HSR06-007
					DRAWN BY H. SULLIVAN									BNSF MERCED CONNECTION AVE 21 / AVE 24 PLAN AND PROFILE	DRAWING NO. T1223-A
					CHECKED BY A. BOONE					STA 5555+00 TO STA 5610+00	SCALE AS SHOWN				
					IN CHARGE A. BOONE					SHEET NO. ### OF ###					
					DATE 07/20/2011										
REV	DATE	BY	CHK	APP	DESCRIPTION										



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  - TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

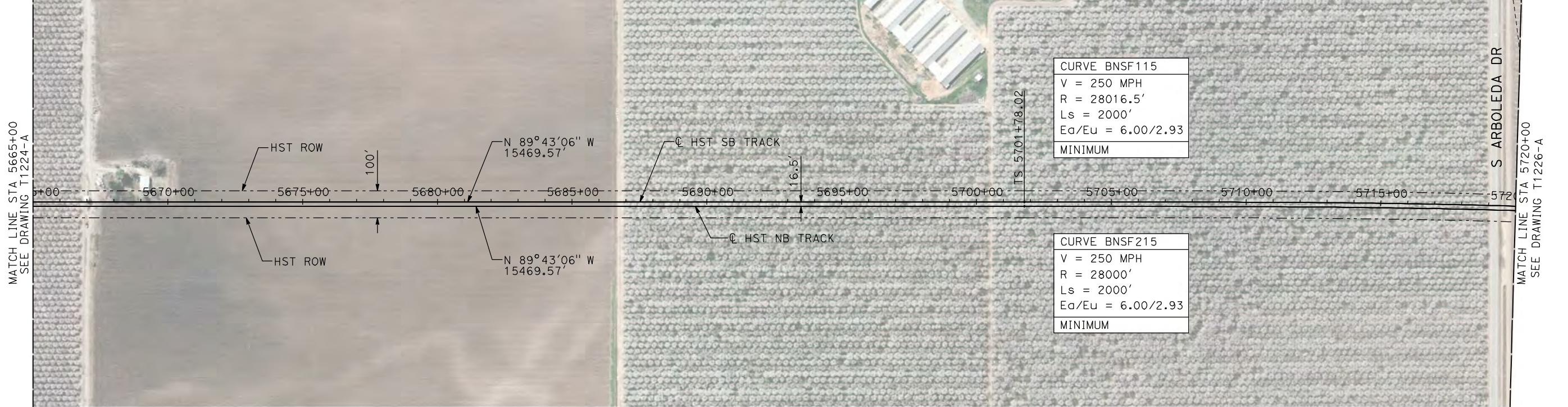
**PLAN**



**PROFILE**

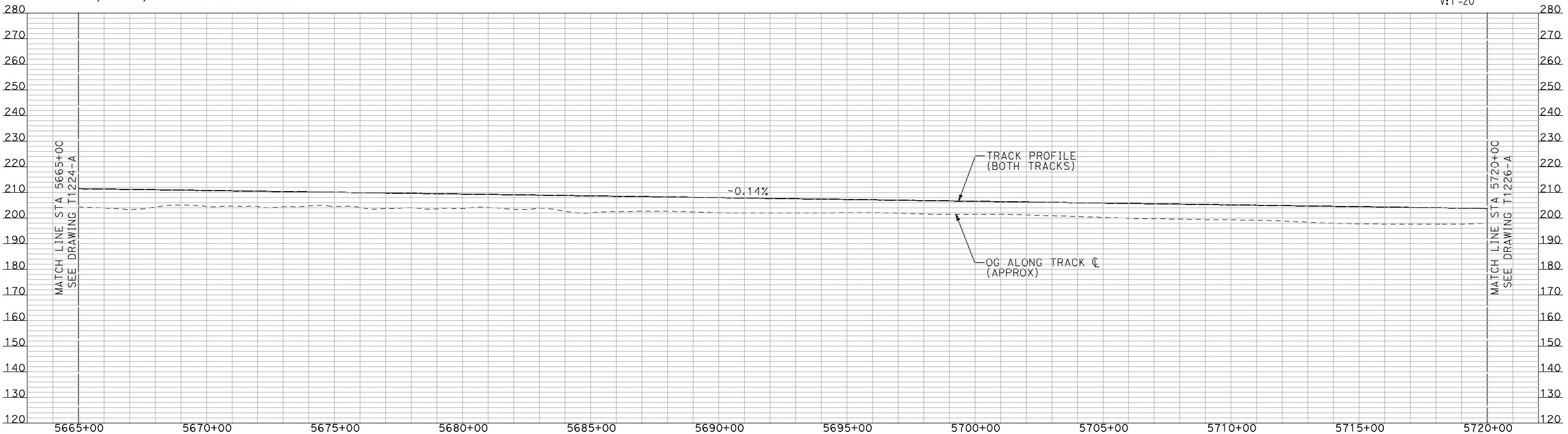
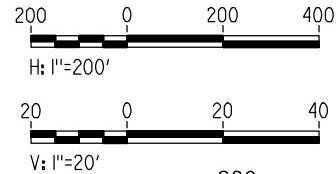
"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

DESIGNED BY A. SHIELDS	RECORD SET 15% DESIGN SUBMITTAL	AECOM Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811	CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO	CONTRACT NO. HSR-007
DRAWN BY H. SULLIVAN	NOT FOR CONSTRUCTION	CH2MHILL	BNSF MERCED CONNECTION AVE 21 / AVE 24 PLAN AND PROFILE	DRAWING NO. T1224-A
CHECKED BY A. BOONE			STA 5610+00 TO STA 5665+00	SCALE AS SHOWN
IN CHARGE A. BOONE				SHEET NO. ### OF ###
DATE 07/20/2011				
REV DATE BY CHK APP	DESCRIPTION			

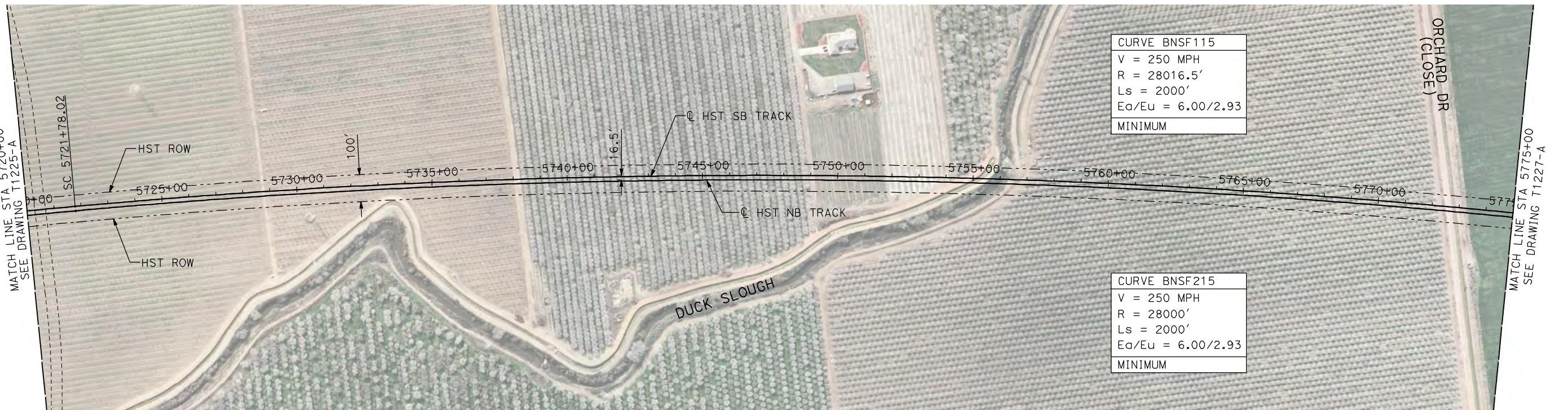


- NOTES:
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  - TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



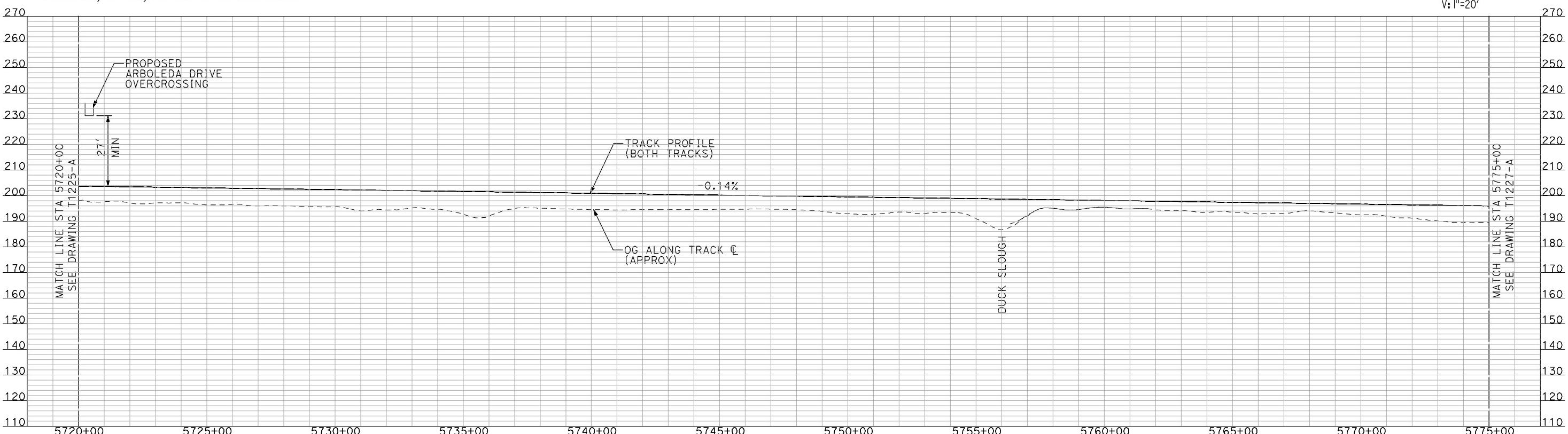
"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"



**NOTES:**

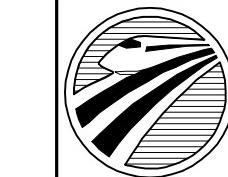
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

**RECORD SET  
15% DESIGN  
SUBMITTAL**

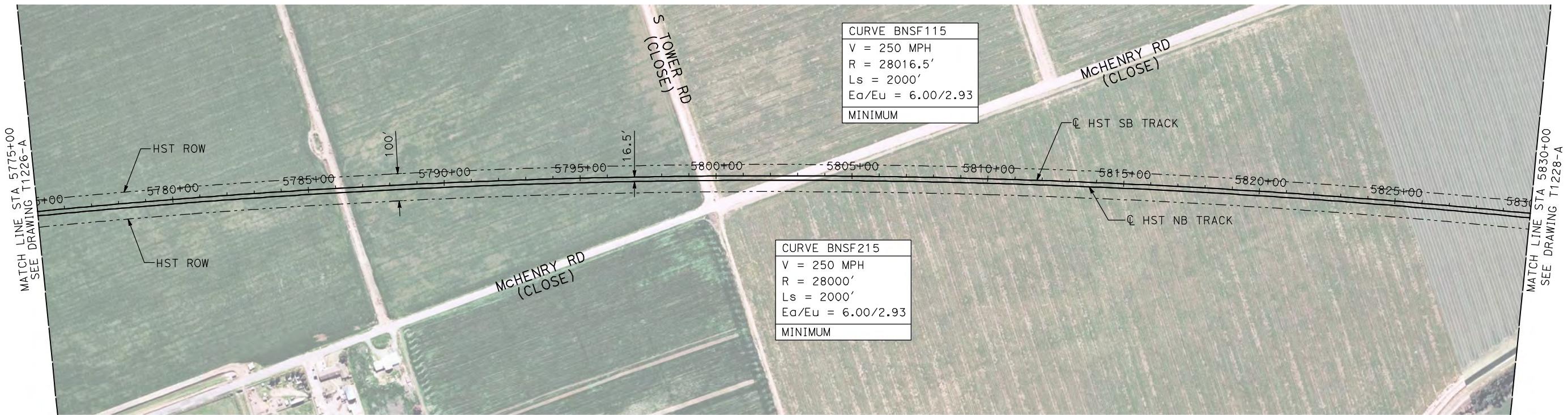


# CALIFORNIA HIGH-SPEED RAIL AUTHORITY

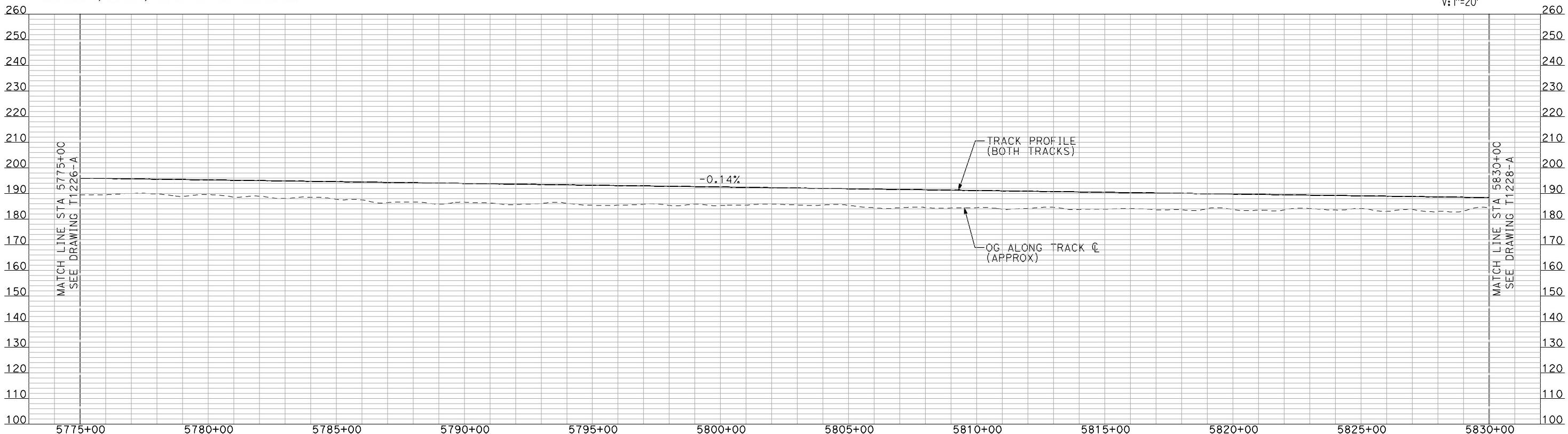
# **CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO**

BNSF MERCED CONNECTION  
AVE 21 / AVE 24  
PLAN AND PROFILE  
STA 5720+00 TO STA 5775+0

**CONTRACT NO.**  
HSR06-007  
**DRAWING NO.**  
T1226-A  
**SCALE**  
AS SHOWN  
 **SHEET NO.**  
### OF ###

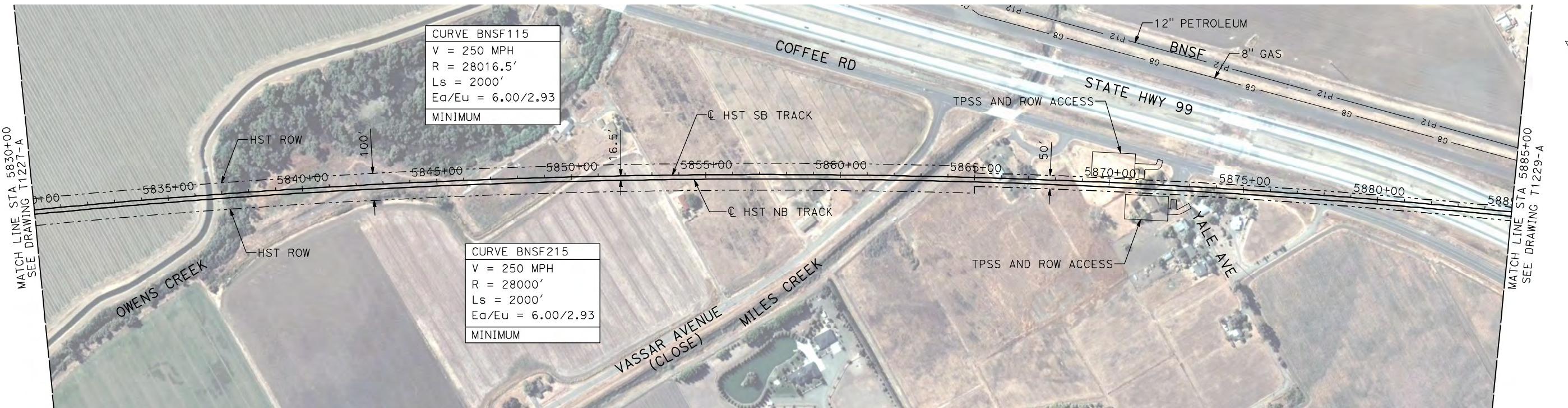


- NOTES:**
- ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
  - TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.



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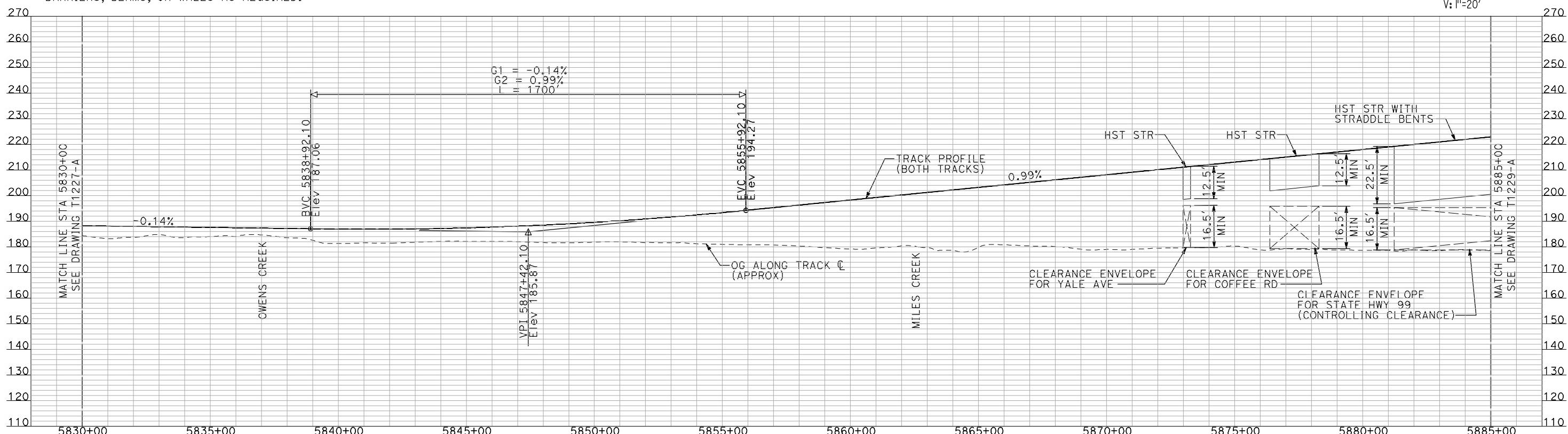
REV	DATE	BY	CHK	APP	DESCRIPTION	DESIGNED BY A. SHIELDS	DRAWN BY H. SULLIVAN	CHECKED BY A. BOONE	IN CHARGE A. BOONE	RECORD SET 15% DESIGN SUBMITTAL	NOT FOR CONSTRUCTION	AECOM Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811	CH2MHILL	CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO	BNSF MERCED CONNECTION AVE 21 / AVE 24 PLAN AND PROFILE STA 5775+00 TO STA 5830+00	CONTRACT NO. HSR06-007	DRAWING NO. T1227-A	SCALE AS SHOWN	SHEET NO. ### OF ###
															"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"				



**NOTES:**

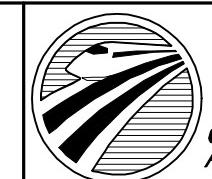
1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN



"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

DESIGNED BY A. SHIELDS	RECD 15% SUB
DRAWN BY H. SULLIVAN	
CHECKED BY A. BOONE	
IN CHARGE A. BOONE	NO CONS
DATE 07/20/2011	



# CALIFORNIA HIGH-SPEED RAIL AUTHORITY

# **CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO**

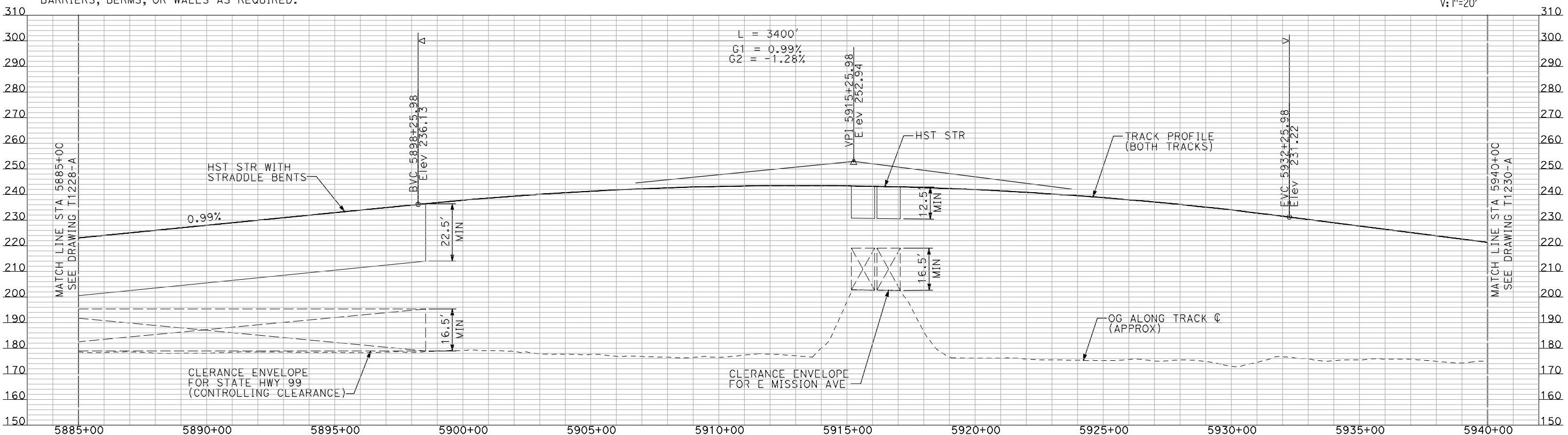
BNSF MERCED CONNECTION  
AVE 21 / AVE 24  
PLAN AND PROFILE  
STA 5830+00 TO STA 5885+

CONTRACT NO.	HSR06-007
DRAWING NO.	T1228-A
SCALE	AS SHOWN
SHEET NO.	### OF ###



- NOTES:**
- ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
  - TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

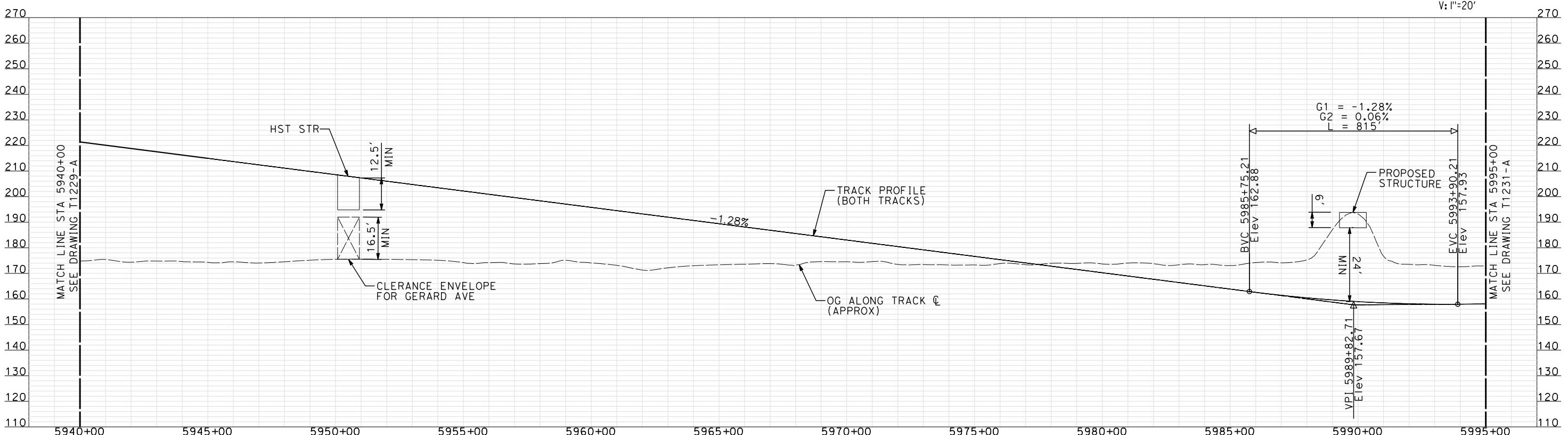
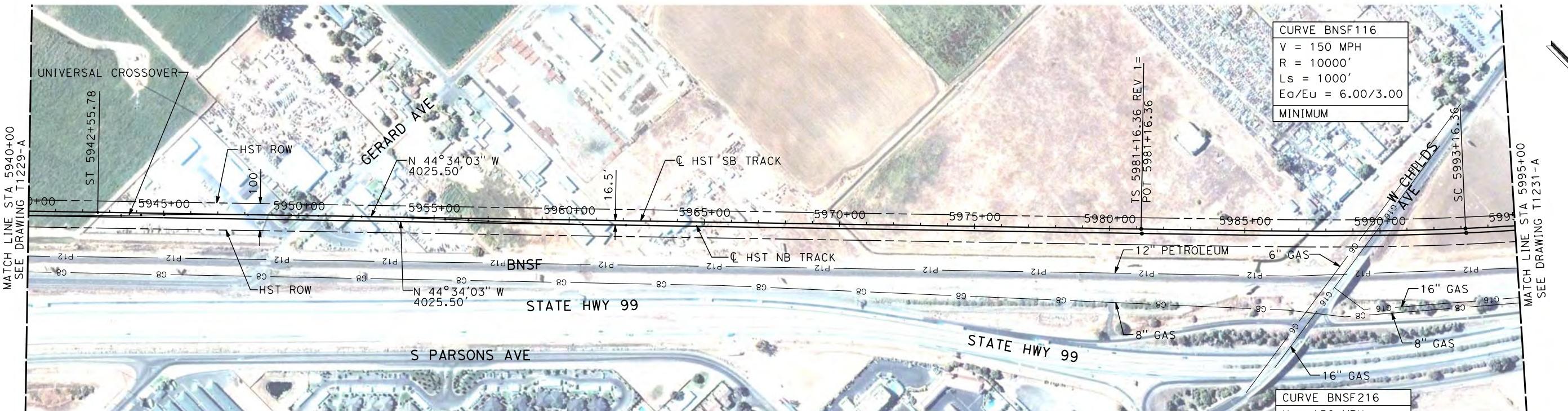
### PLAN



### PROFILE

"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION	DESIGNED BY A. SHIELDS DRAWN BY H. SULLIVAN CHECKED BY A. BOONE IN CHARGE A. BOONE DATE 07/20/2011	RECORD SET 15% DESIGN SUBMITTAL <b>NOT FOR CONSTRUCTION</b>	AECOM Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811  CH2MHILL	CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO BNSF MERCED CONNECTION AVE 21 / AVE 24 PLAN AND PROFILE STA 5885+00 TO STA 5940+00	CONTRACT NO. HSR06-007 DRAWING NO. T1229-A SCALE AS SHOWN SHEET NO. ### OF ###
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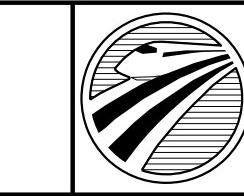
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1	12/12/2011	AS			DRAWN BY H. SULLIVAN				BNSF MERCED CONNECTION AVE 21 / AVE 24 PLAN AND PROFILE	DRAWING NO. T1230-A
REV	DATE	BY	CHK	APP	CHECKED BY A. BOONE	IN CHARGE A. BOONE	DATE 07/27/2011	DESCRIPTION	STA 5940+00 TO STA 5995+00	SCALE AS SHOWN

RECORD SET  
15% DESIGN  
SUBMITTAL

NOT FOR  
CONSTRUCTION

**AECOM**  
Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811

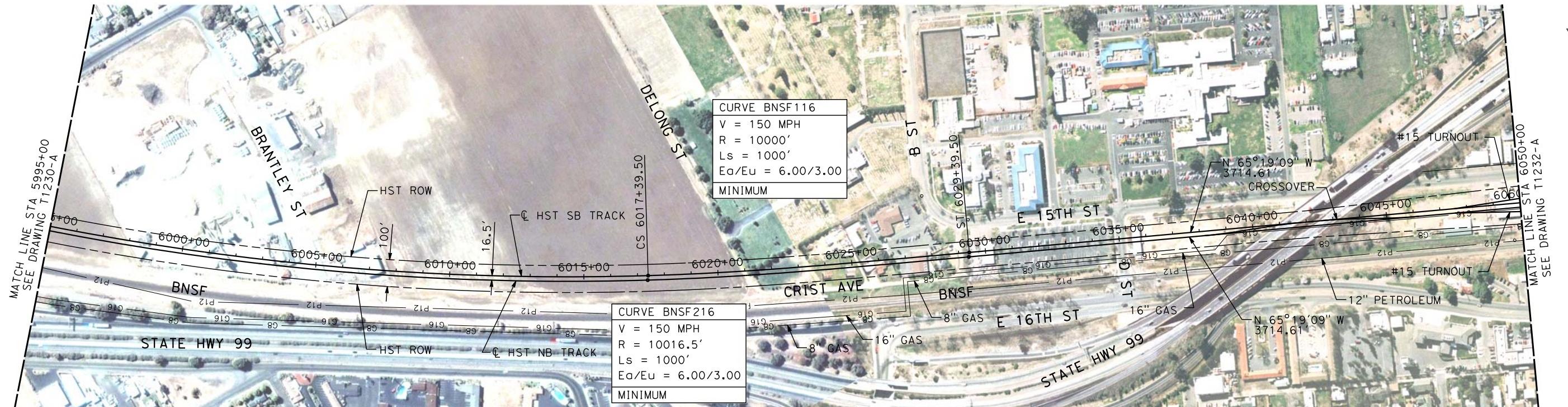
**CH2MHILL**



CALIFORNIA  
HIGH-SPEED RAIL AUTHORITY

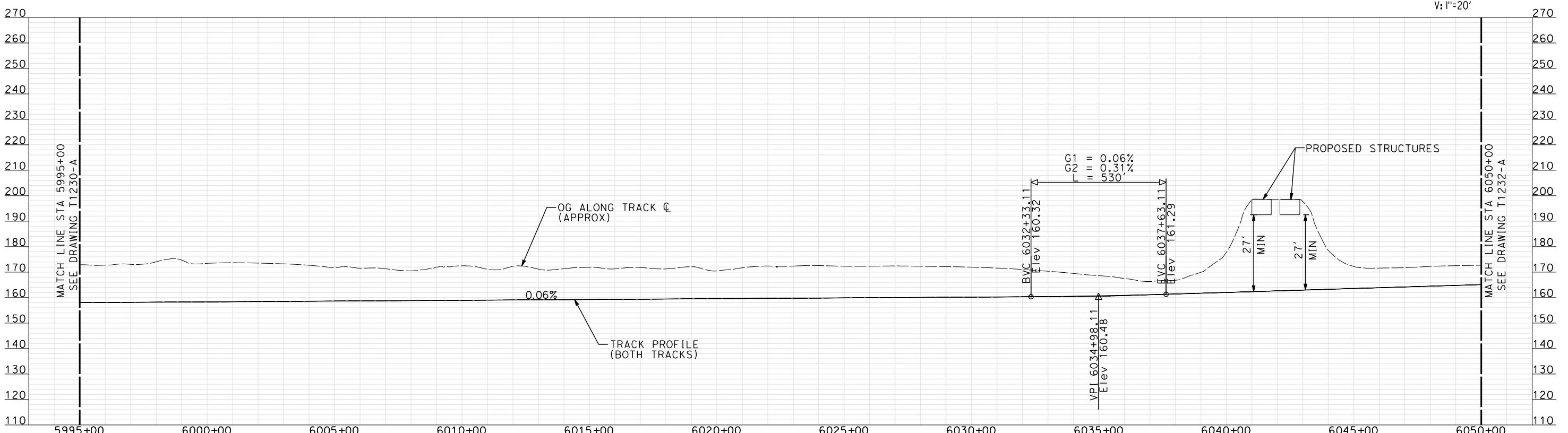
"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

CONTRACT NO.  
HSR-007  
DRAWING NO.  
T1230-A  
SCALE  
AS SHOWN  
SHEET NO.  
### OF ###



**PLAN**

**NOTE:**  
ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES  
BASED ON RECORD DRAWINGS AND ARE SHOWN FOR  
INFORMATIONAL PURPOSES ONLY.



**PROFILE**

3/25/2012 4:01:39 PM

shieldaa

1	12/12/2011	AS			TRACK REALIGNMENT	
REV	DATE	BY	CHK	APP	DESCRIPTION	07/27/2011

DESIGNED BY  
A. SHIELDS  
DRAWN BY  
H. SULLIVAN  
CHECKED BY  
A. BOONE  
IN CHARGE  
A. BOONE

RECORD SET  
15% DESIGN  
SUBMITTAL  
**NOT FOR  
CONSTRUCTION**

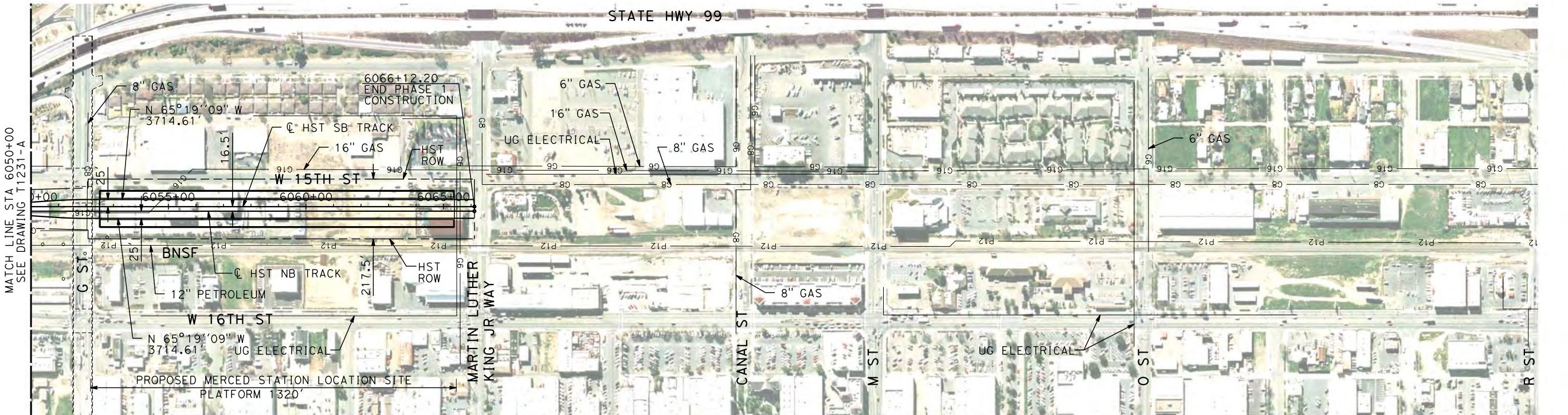
**AECOM**  
Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811  
**CH2MHILL**



"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

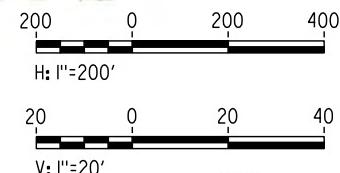
**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
MERCED TO FRESNO**  
BNSF MERCED CONNECTION  
AVE 21 / AVE 24  
PLAN AND PROFILE  
STA 5995+00 TO STA 6050+00

CONTRACT NO.  
HSR06-007  
DRAWING NO.  
T1231-A  
SCALE  
AS SHOWN  
SHEET NO.  
### OF ###



**NOTE:**  
ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES  
BASED ON RECORD DRAWINGS AND ARE SHOWN FOR  
INFORMATIONAL PURPOSES ONLY.

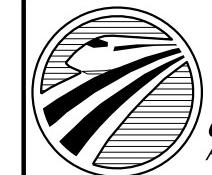
PLAN



PROFILE

"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

**RECORD SET  
15% DESIGN  
SUBMITTAL**

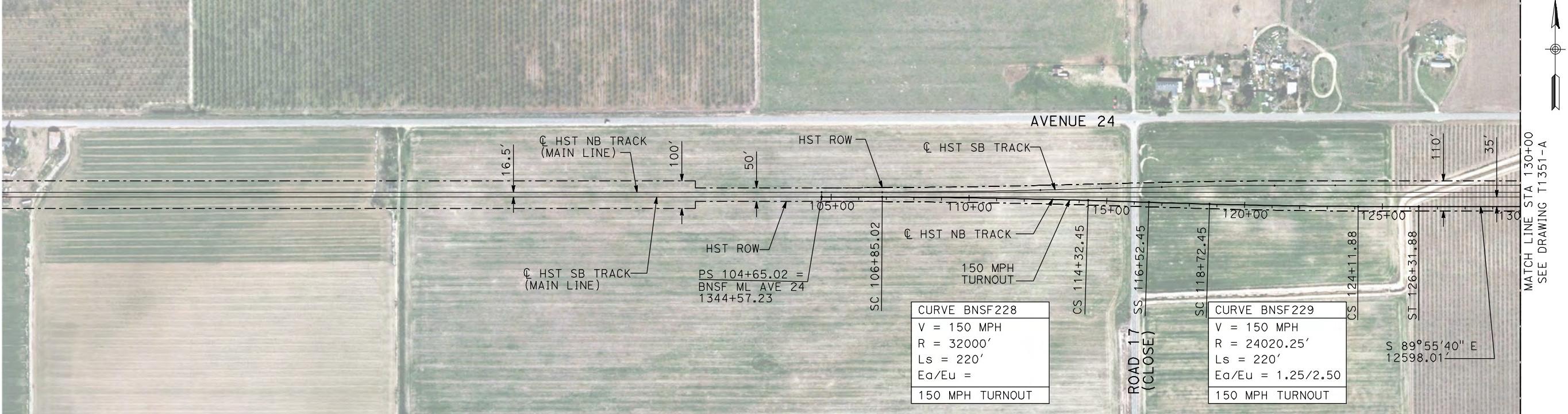


**CALIFORNIA**  
HIGH-SPEED RAIL AUTHORITY

# **CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO**

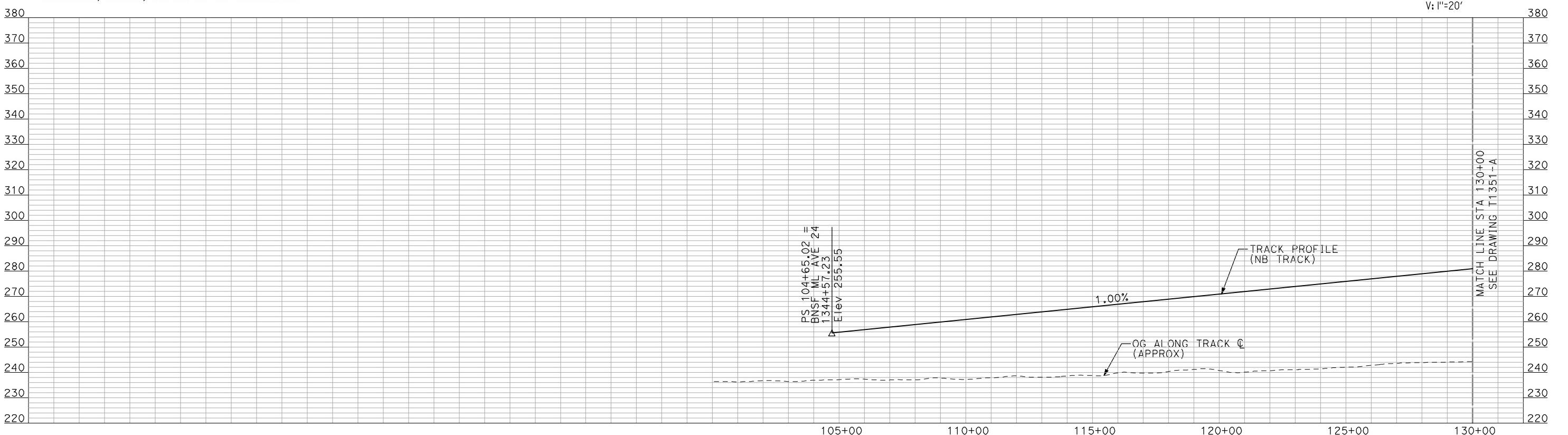
BNSF MERCED CONNECTION  
AVE 21 / AVE 24  
PLAN AND PROFILE  
STA 6050+00 TO STA 6066+12

CONTRACT NO.  
HSR06-007  
DRAWING NO.  
T1232-A  
SCALE  
AS SHOWN  
SHEET NO.  
#### OF ####



- NOTES:
- ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
  - TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

**PLAN**



**PROFILE**

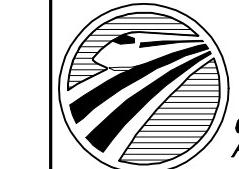
"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY  
A. SHIELDS  
DRAWN BY  
H. SULLIVAN  
CHECKED BY  
A. BOONE  
IN CHARGE  
A. BOONE  
DATE  
07/20/2011

RECORD SET  
15% DESIGN  
SUBMITTAL  
**NOT FOR  
CONSTRUCTION**

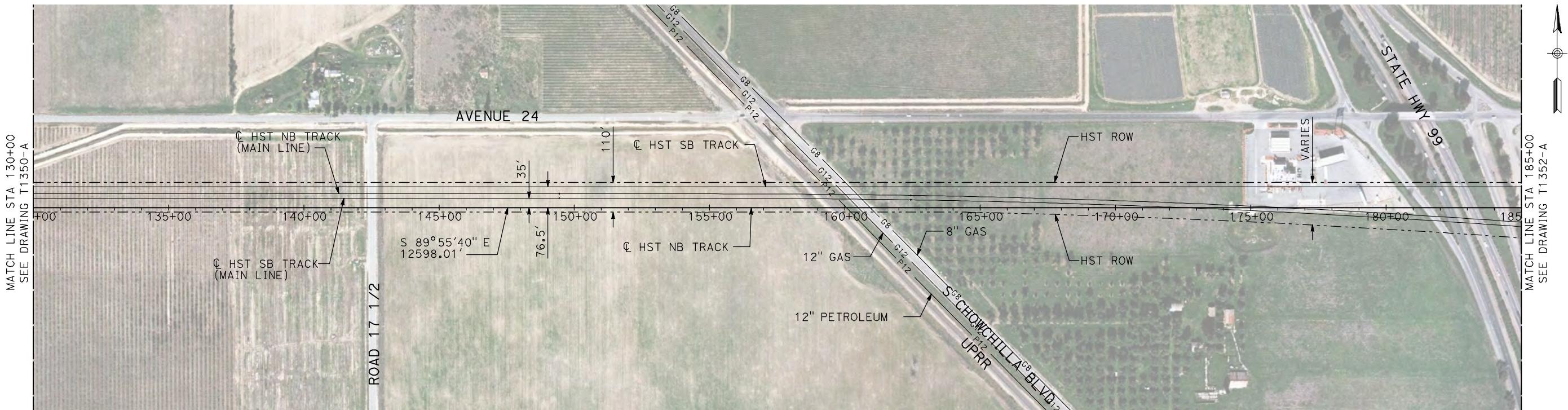
**AECOM**  
Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811  
**CH2MHILL**



**CALIFORNIA**  
HIGH-SPEED RAIL AUTHORITY

**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
MERCED TO FRESNO**  
BNSF WYE - NB CONNECTION  
AVENUE 24  
PLAN AND PROFILE  
STA 104+65.02 TO STA 130+00

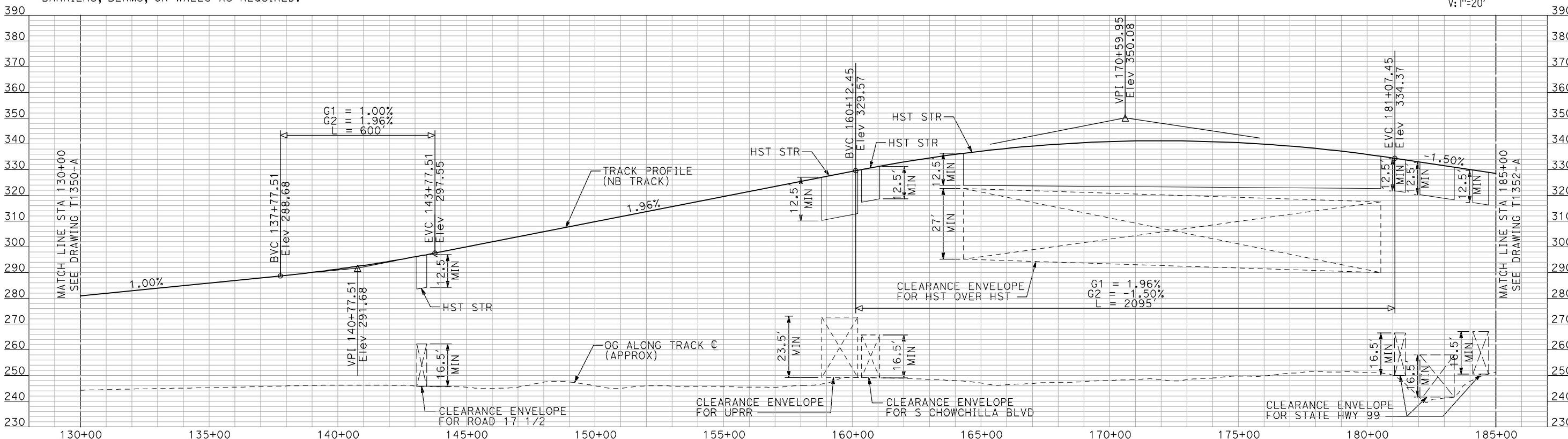
CONTRACT NO.  
HSR-007  
DRAWING NO.  
T1350-A  
SCALE  
AS SHOWN  
SHEET NO.  
### OF ###



**NOTES:**

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

## **PLAN**

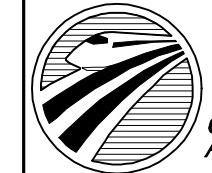


"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

ANSWER

**RECORD SET  
15% DESIGN  
SUBMITTAL**

**NOT FOR  
CONSTRUCTION**

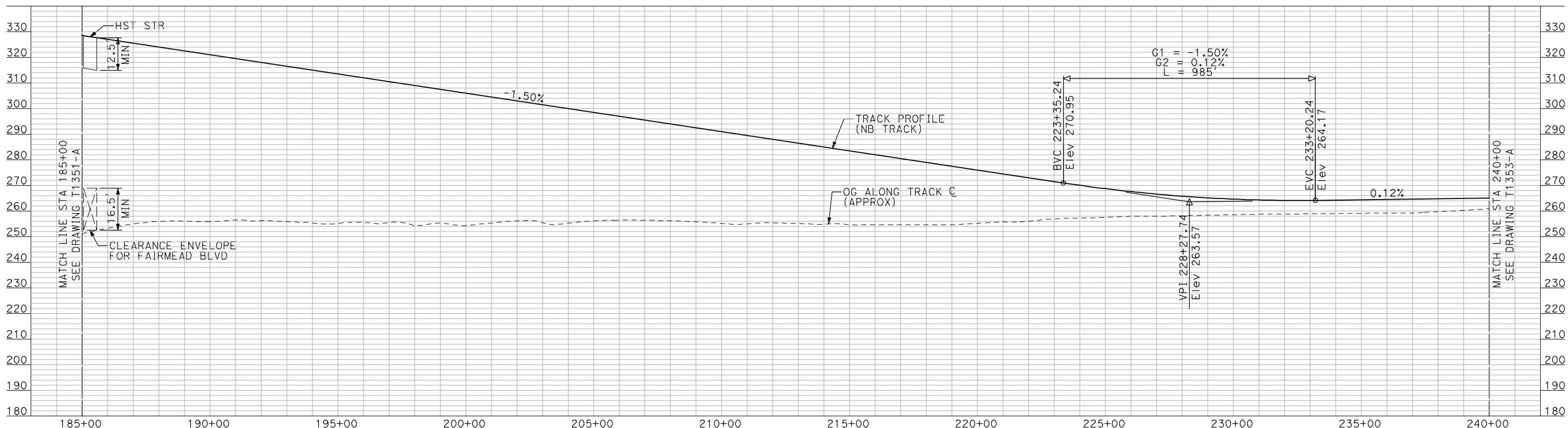
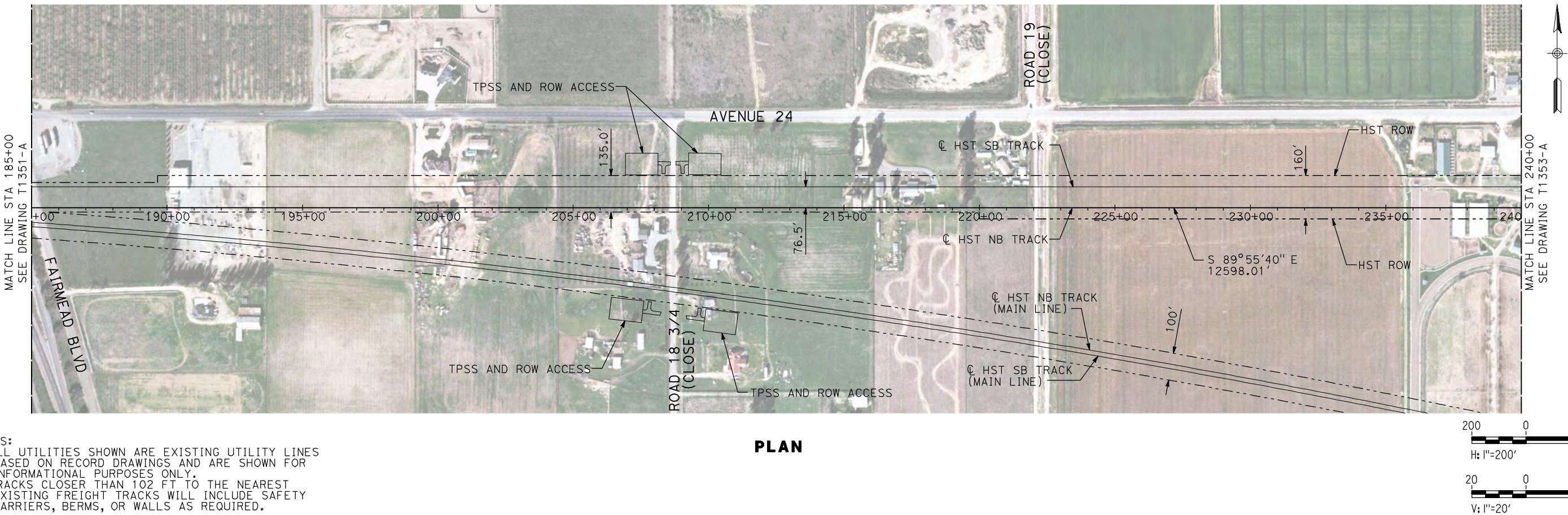


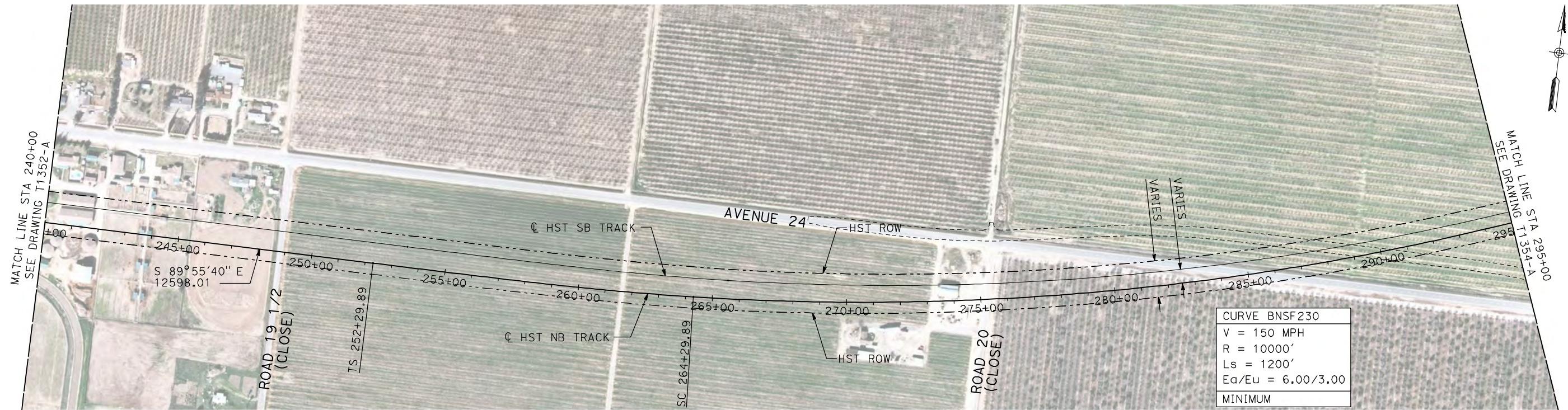
**CALIFORNIA  
HIGH-SPEED RAIL AUTHORITY**

# **CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO**

BNSF WYE - NB CONNECTION  
AVENUE 24  
PLAN AND PROFILE  
STA 130+00 TO STA 185+00

CONTRACT NO.  
HSR06-007  
DRAWING NO.  
T1351-A  
SCALE  
AS SHOWN  
SHEET NO.  
### OF ###

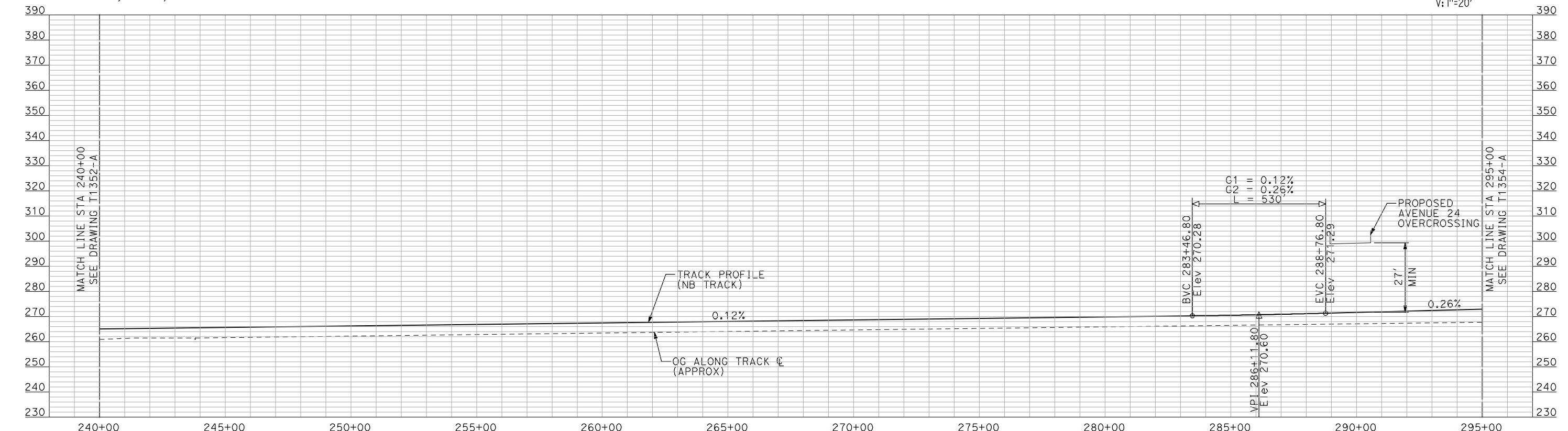




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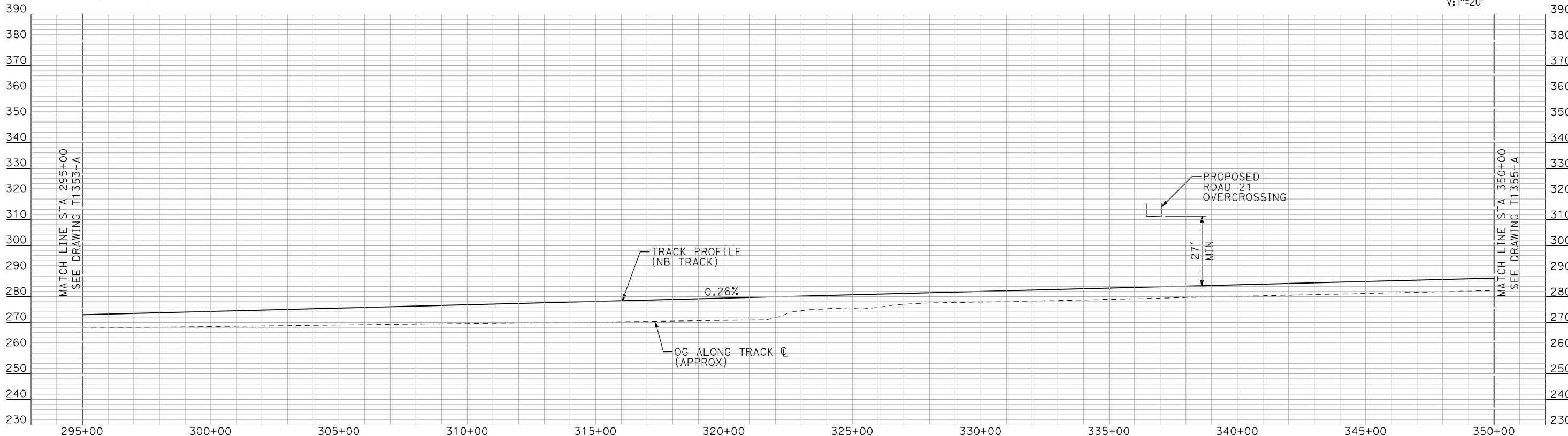
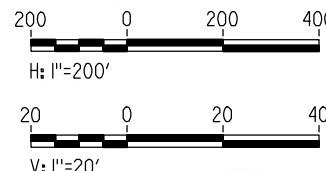
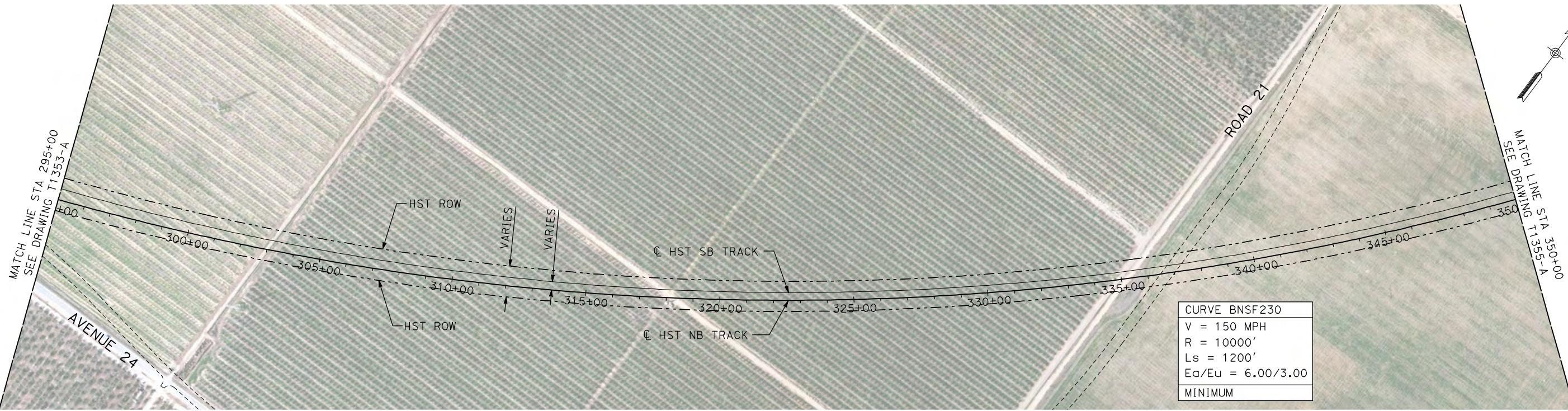
- ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
- TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

### PLAN



### PROFILE

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"



**PROFILE**

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

REV	DATE	BY	CHK	APP	DESCRIPTION
machadoe					

DESIGNED BY  
A. SHIELDS  
DRAWN BY  
H. SULLIVAN  
CHECKED BY  
A. BOONE  
IN CHARGE  
A. BOONE  
DATE  
07/20/2011

RECORD SET  
15% DESIGN  
SUBMITTAL  
**NOT FOR  
CONSTRUCTION**

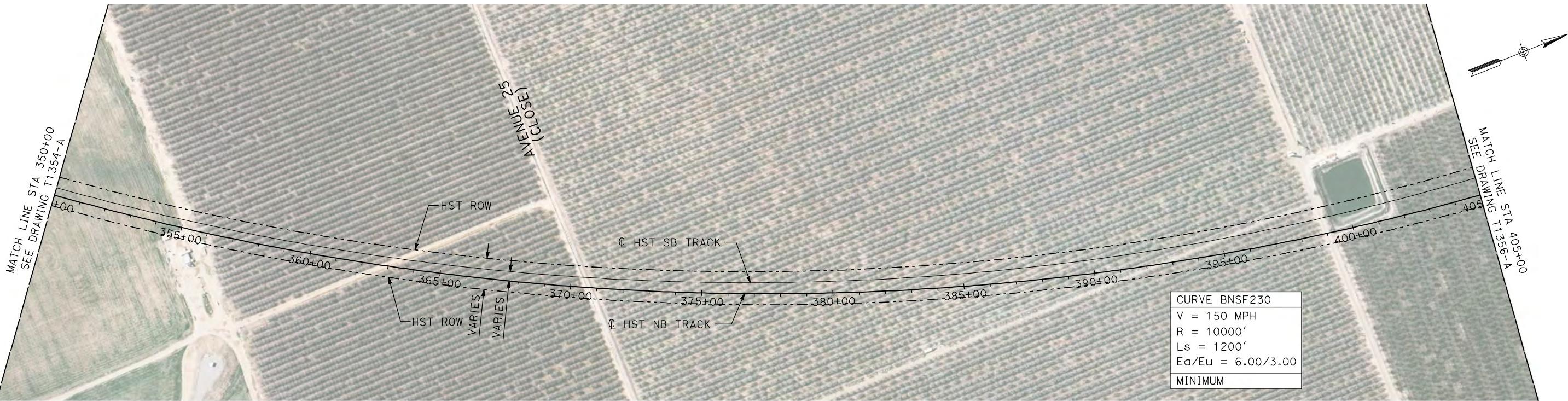
**AECOM**  
Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811  
**CH2MHILL**



**CALIFORNIA**  
HIGH-SPEED RAIL AUTHORITY

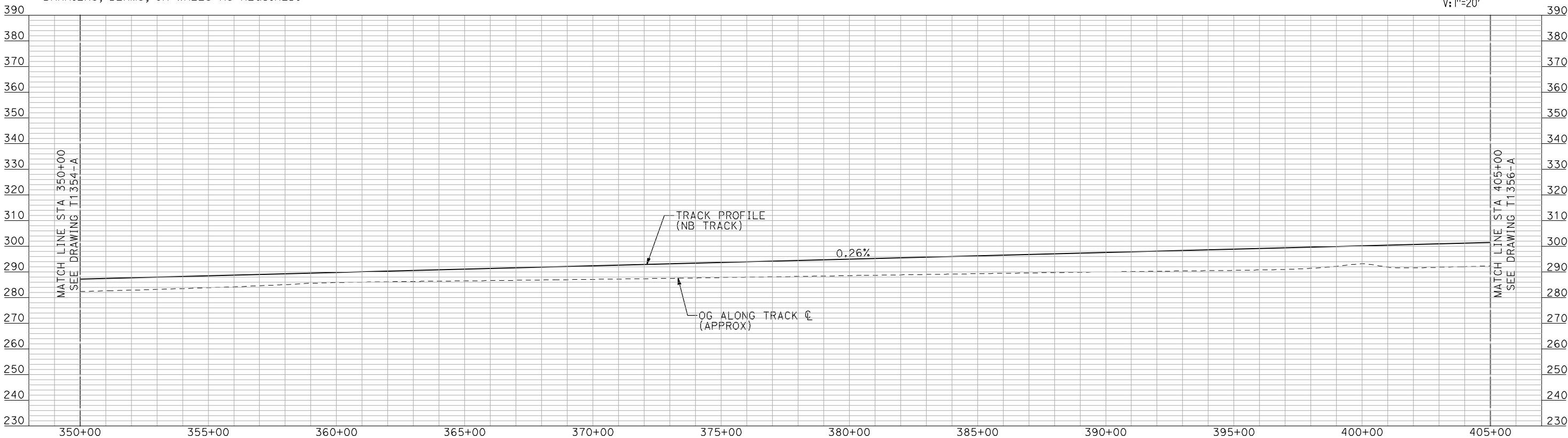
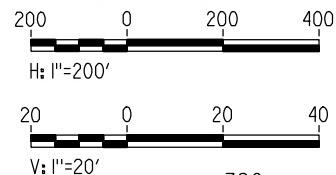
**CALIFORNIA HIGH-SPEED TRAIN PROJECT**  
**MERCED TO FRESNO**  
BNSF WYE - NB CONNECTION  
AVENUE 24  
PLAN AND PROFILE  
STA 295+00 TO STA 350+00

CONTRACT NO.  
HSR06-007  
DRAWING NO.  
T1354-A  
SCALE  
AS SHOWN  
SHEET NO.  
### OF ###



- NOTES:
- ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
  - TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

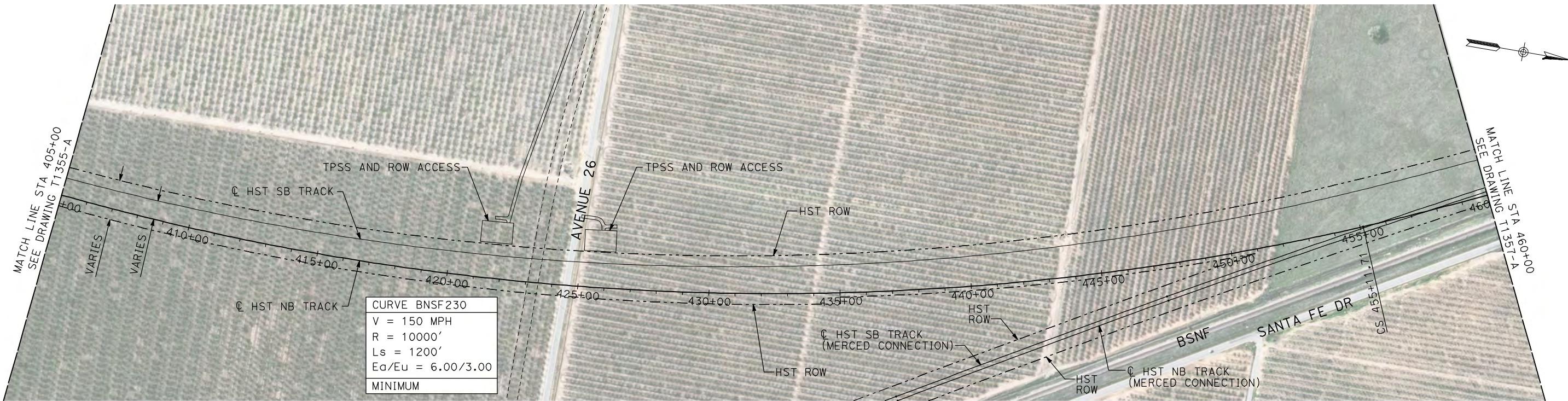
**PLAN**



**PROFILE**

"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

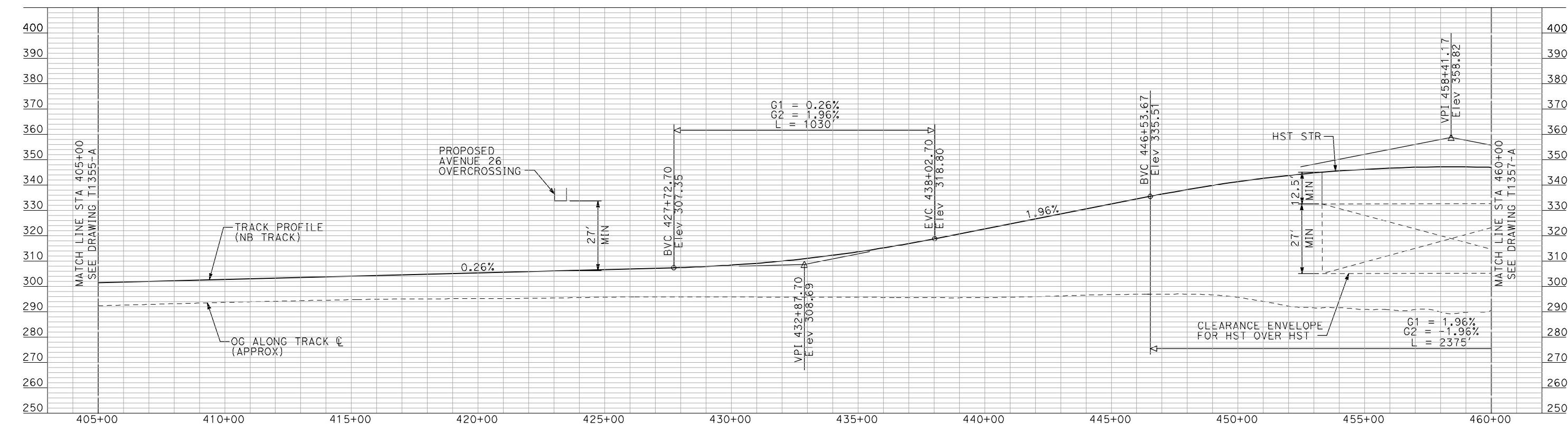
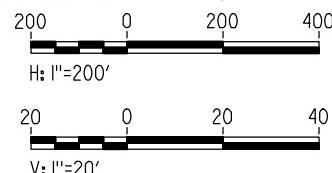
REV	DATE	BY	CHK	APP	DESCRIPTION	DESIGNED BY A. SHIELDS DRAWN BY H. SULLIVAN CHECKED BY A. BOONE IN CHARGE A. BOONE DATE 07/20/2011	RECORD SET 15% DESIGN SUBMITTAL <b>NOT FOR CONSTRUCTION</b>	AECOM Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811  CH2MHILL	CALIFORNIA HIGH-SPEED RAIL AUTHORITY	CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO BNSF WYE - NB CONNECTION AVENUE 24 PLAN AND PROFILE STA 350+00 TO STA 405+00	CONTRACT NO. HSR06-007 DRAWING NO. T1355-A SCALE AS SHOWN SHEET NO. ### OF ###
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**NOTES:**

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLA



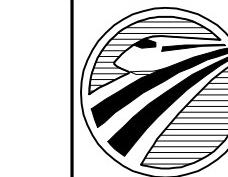
"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

7/2					
machadoee					
REV	DATE	BY	CHK	APP	DESCRIPTION

machadoe					
REV	DATE	BY	CHK	APP	DESCRIPTION

**RECORD 5  
15% DESIGN  
SUBMITTAL**

**NOT FOR  
CONSTRUCTION**



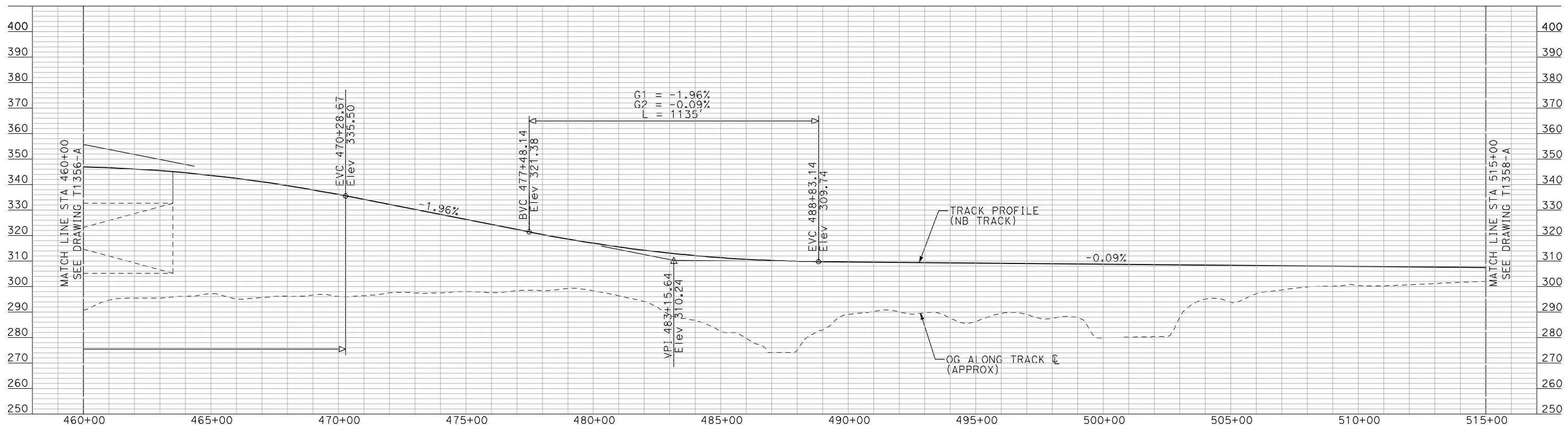
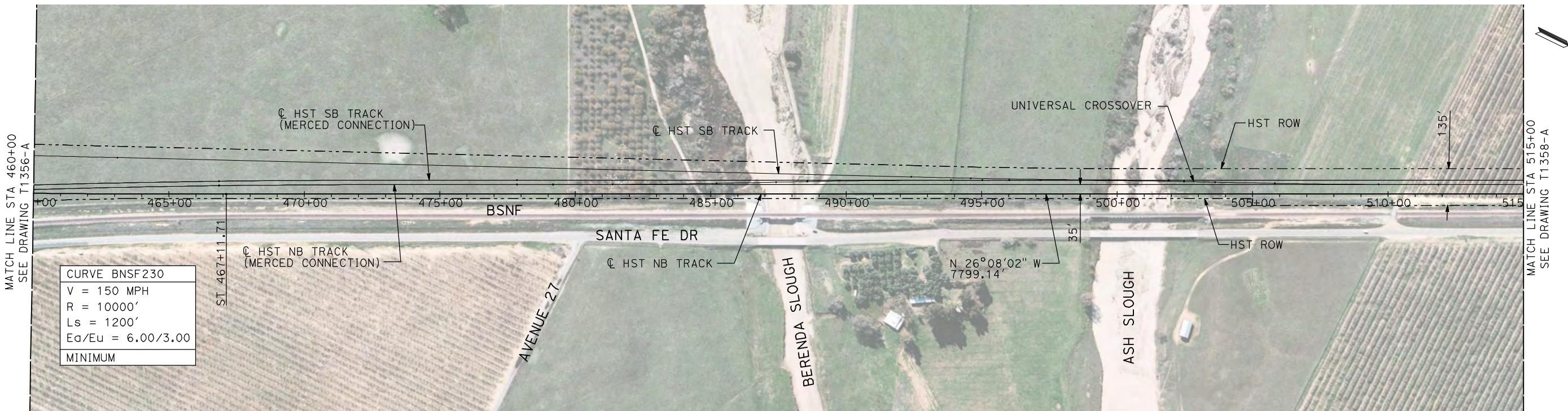
 CALIFORNIA  
HIGH-SPEED RAIL AUTHORITY

PROFIL

# **CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO**

BNSF WYE - NB CONNECTION  
AVENUE 24  
PLAN AND PROFILE  
STA 405+00 TO STA 460+00

CONTRACT NO.  
HSR06-007  
DRAWING NO.  
T1356-A  
SCALE  
AS SHOWN  
SHEET NO.  
### OF ###



PROFILE

"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

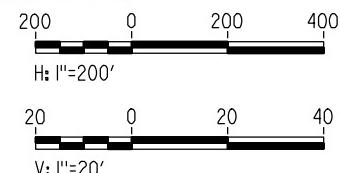
DESIGNED BY A. SHIELDS	RECORD SET 15% DESIGN SUBMITTAL	AECOM Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811	CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO	CONTRACT NO. HSR-007
DRAWN BY H. SULLIVAN	NOT FOR CONSTRUCTION	CH2MHILL	BNSF WYE - NB CONNECTION AVENUE 24 PLAN AND PROFILE STA 460+00 TO STA 515+00	DRAWING NO. T1357-A
CHECKED BY A. BOONE				SCALE AS SHOWN
IN CHARGE A. BOONE				SHEET NO. ### OF ###
DATE 07/20/2011				
REV	DATE	BY	CHK	APP
				DESCRIPTION



**NOTES:**

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

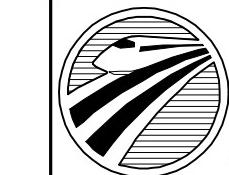
## PLAN



## **PROFILE**

"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

**RECORD 5  
15% DESIGN  
SUBMITTAL**

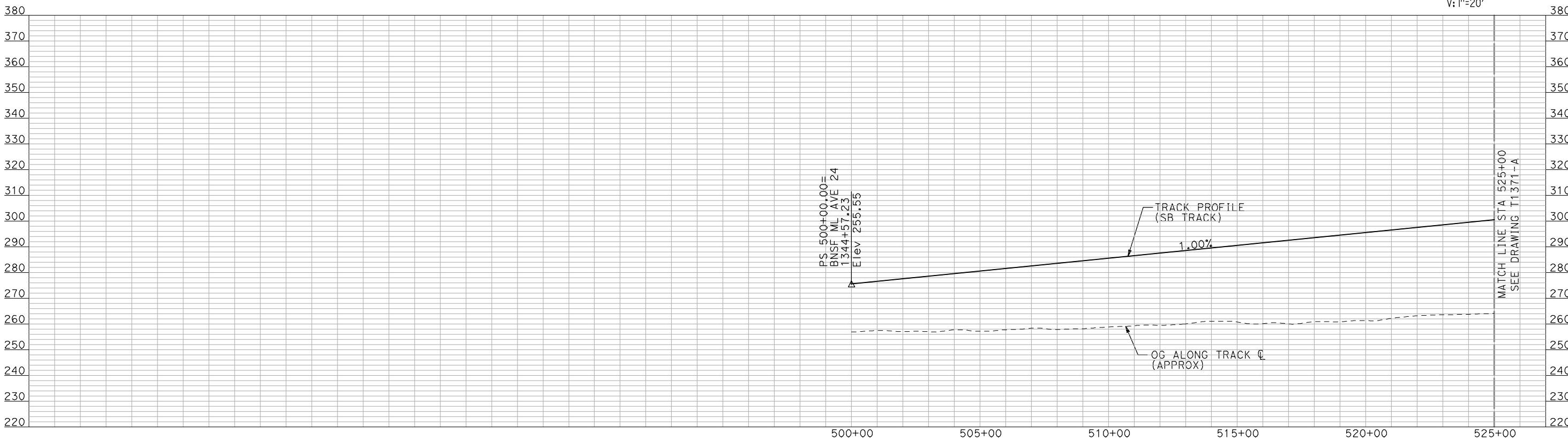
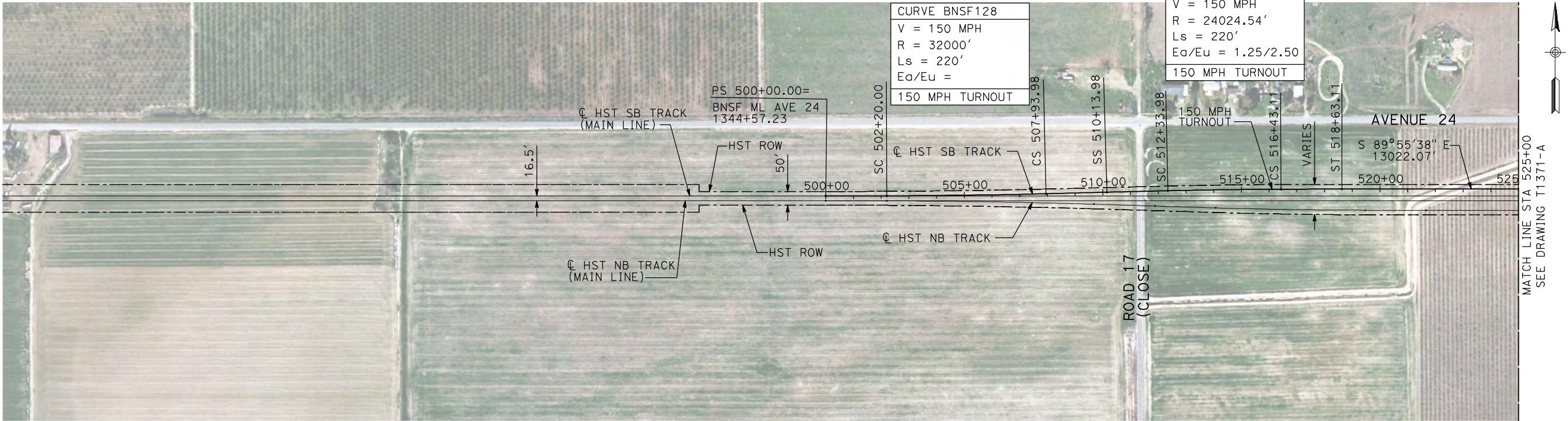


# CALIFORNIA HIGH-SPEED RAIL AUTHORITY

**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
MERCED TO FRESNO**

BNSF WYE - NB CONNECTION  
AVENUE 24  
PLAN AND PROFILE  
STA 515+00 TO STA 566+78.51

CONTRACT NO.  
HSR06-007  
DRAWING NO.  
T1358-A  
SCALE  
AS SHOWN  
SHEET NO.  
### OF ###



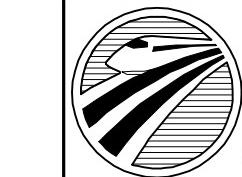
REV	DATE	BY	CHK	APP	DESCRIPTION
					07/20/2011

DESIGNED BY  
A. SHIELDS  
DRAWN BY  
H. SULLIVAN  
CHECKED BY  
A. BOONE  
IN CHARGE  
A. BOONE  
DATE  
07/20/2011

RECORD SET  
15% DESIGN  
SUBMITTAL  
**NOT FOR  
CONSTRUCTION**

**AECOM**  
Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811

**CH2MHILL**

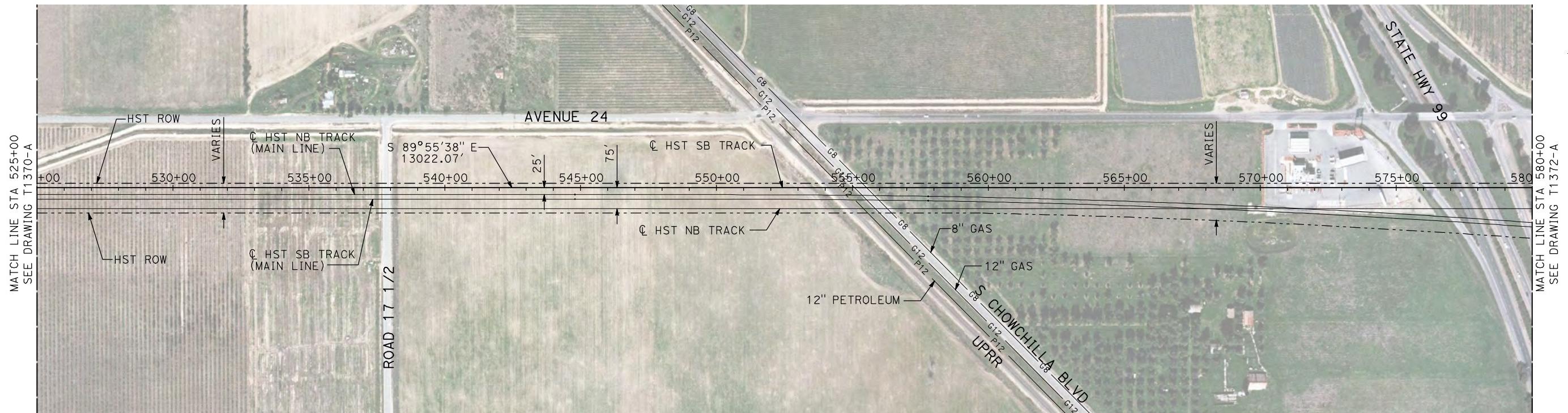


CALIFORNIA  
HIGH-SPEED RAIL AUTHORITY

**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
MERCED TO FRESNO**  
BNSF WYE - SB CONNECTION  
AVENUE 24  
PLAN AND PROFILE  
STA 500+00 TO STA 525+00

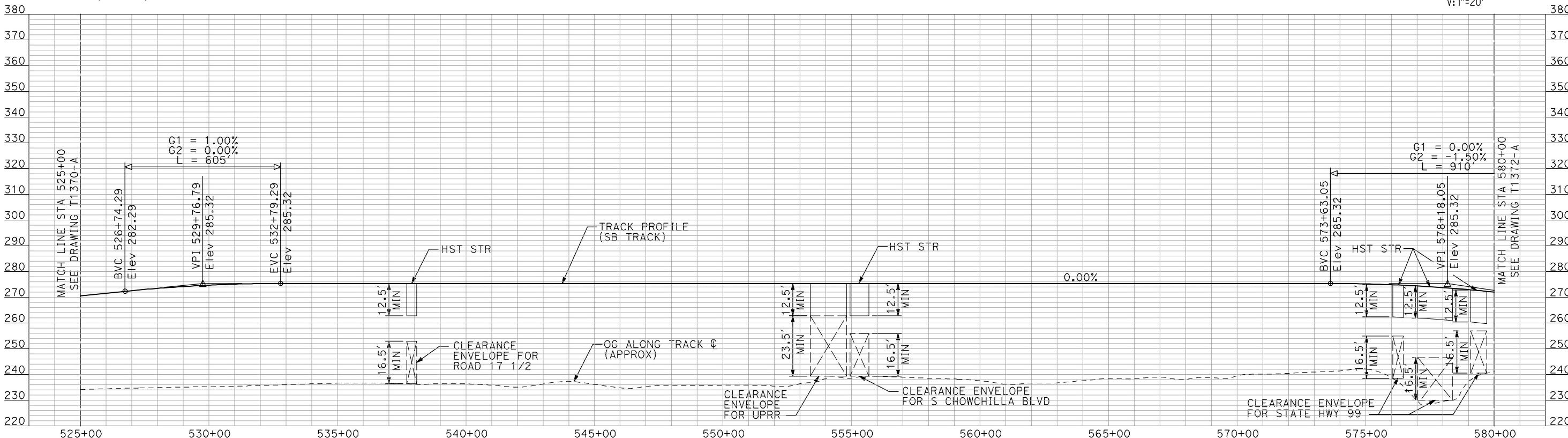
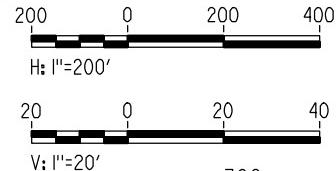
CONTRACT NO.  
HSR06-007  
DRAWING NO.  
T1370-A  
SCALE  
AS SHOWN  
SHEET NO.  
### OF ###

"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"



- NOTES:**
- ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
  - TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

**PLAN**



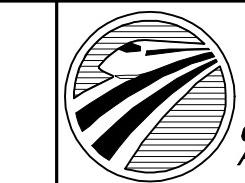
**PROFILE**

"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

DESIGNED BY  
A. SHIELDS  
DRAWN BY  
H. SULLIVAN  
CHECKED BY  
A. BOONE  
IN CHARGE  
A. BOONE  
DATE  
07/20/2011

RECORD SET  
15% DESIGN  
SUBMITTAL  
**NOT FOR  
CONSTRUCTION**

**AECOM**  
Technical Services, Inc.  
2020 L Street, Suite 300  
Sacramento, CA 95811  
**CH2MHILL**



**CALIFORNIA**  
HIGH-SPEED RAIL AUTHORITY

**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
MERCED TO FRESNO**  
BNSF WYE - SB CONNECTION  
AVENUE 24  
PLAN AND PROFILE  
STA 525+00 TO STA 580+00

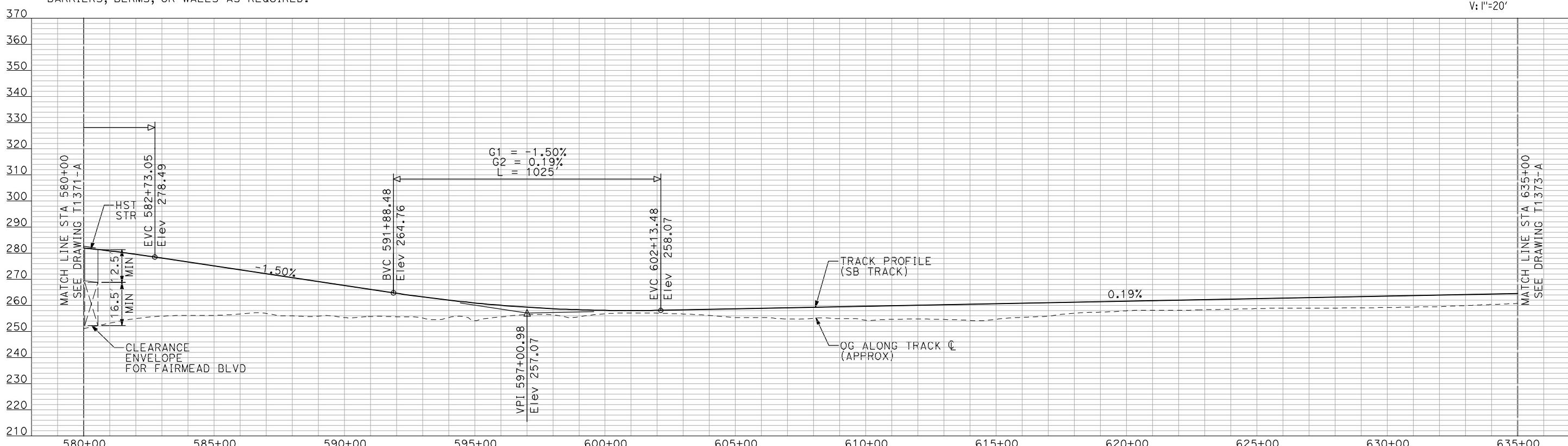
CONTRACT NO.  
HSR06-007  
DRAWING NO.  
T1371-A  
SCALE  
AS SHOWN  
SHEET NO.  
### OF ###



**NOTES:**

1. ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
2. TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

PLAN

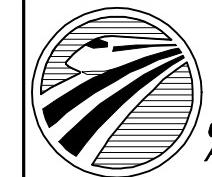


"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

DESIGNED
A. SH
DRAWN B.
H. SU
CHECKED
A. BO
IN CHARGE
A. BO
DATE
07/20

**RECORD SET  
15% DESIGN  
SUBMITTAL**

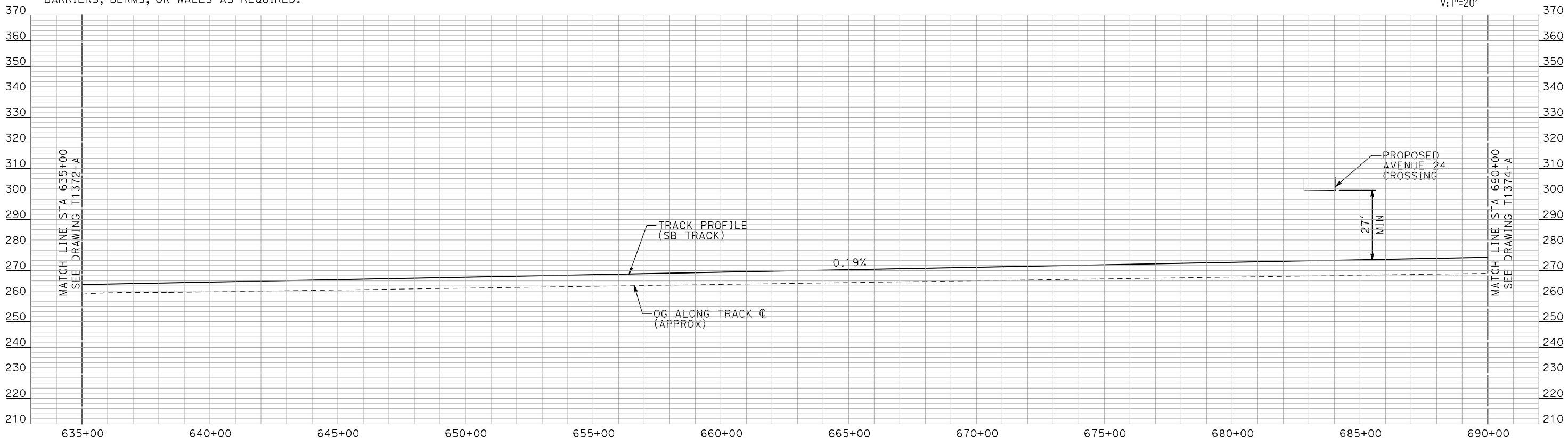
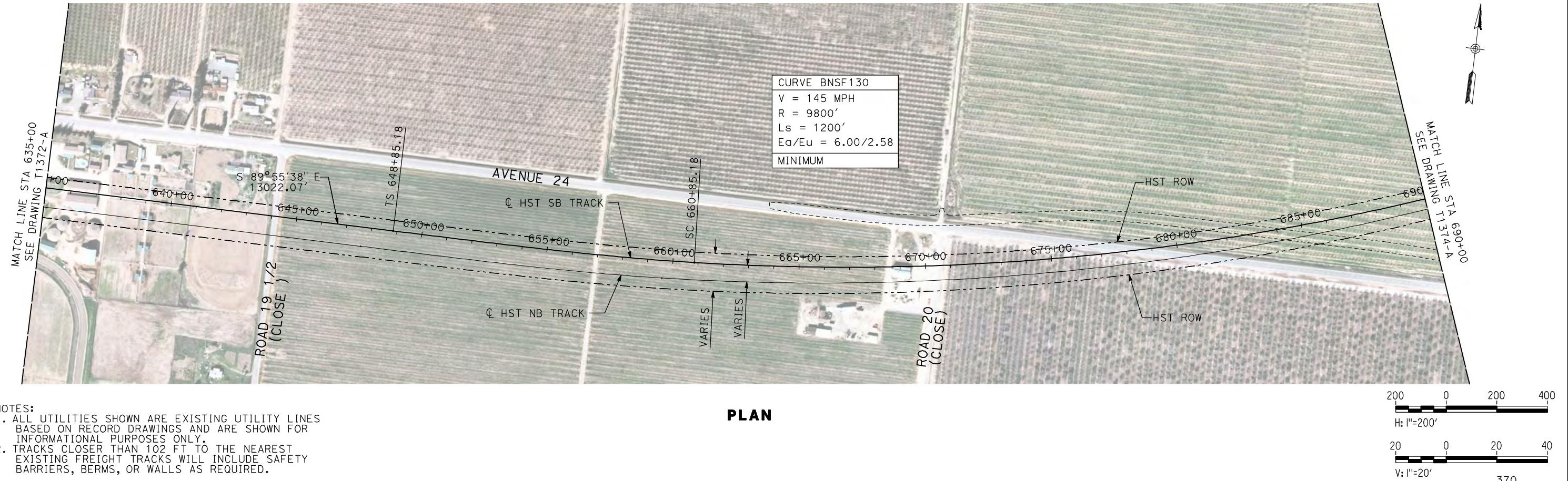
**NOT FOR  
CONSTRUCTION**



CALIFORNIA  
HIGH-SPEED RAIL AUTHORITY

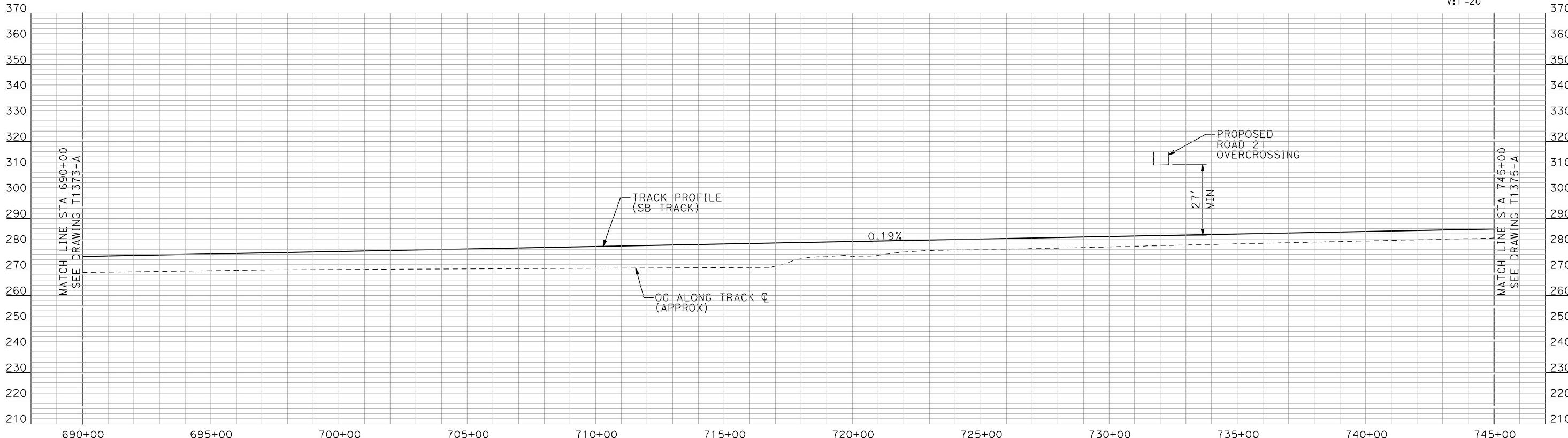
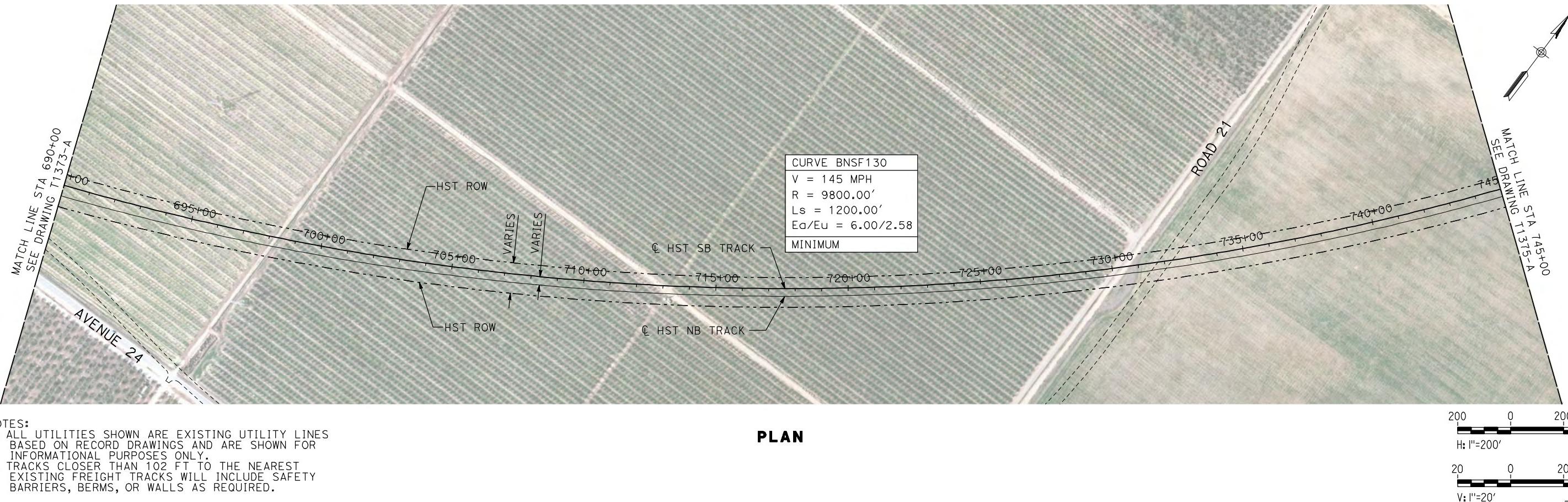
**CALIFORNIA HIGH-SPEED TRAIN PROJECT**  
**MERCED TO FRESNO**  
BNSF WYE - SB CONNECTION  
AVENUE 24  
PLAN AND PROFILE  
STA 580+00 TO STA 635+00

CONTRACT NO.  
HSR06-007  
DRAWING NO.  
T1372-A  
SCALE  
AS SHOWN  
SHEET NO.  
#### OF ####



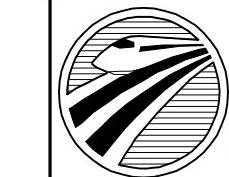
"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

7/21							PROJECT		TYPICAL SECTION LIMITS AND DETAILS				
machadoe							DESIGNED BY A. SHIELDS DRAWN BY H. SULLIVAN CHECKED BY A. BOONE IN CHARGE A. BOONE  DATE 07/20/2011		<b>RECORD SET 15% DESIGN SUBMITTAL</b>  <b>NOT FOR CONSTRUCTION</b>	 2020 L Street, Suite 300 Sacramento, CA 95811  	 <b>CALIFORNIA</b> <small>HIGH-SPEED RAIL AUTHORITY</small>	<b>CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO</b> BNSF WYE - SB CONNECTION AVENUE 24 PLAN AND PROFILE STA 635+00 TO STA 690+00	CONTRACT NO. HSR06-007  DRAWING NO. T1373-A  SCALE AS SHOWN  SHEET NO. #### OF ####
	REV	DATE	BY	CHK	APP	DESCRIPTION							



"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

**RECORD SHEET  
15% DESIGN  
SUBMITTAL**

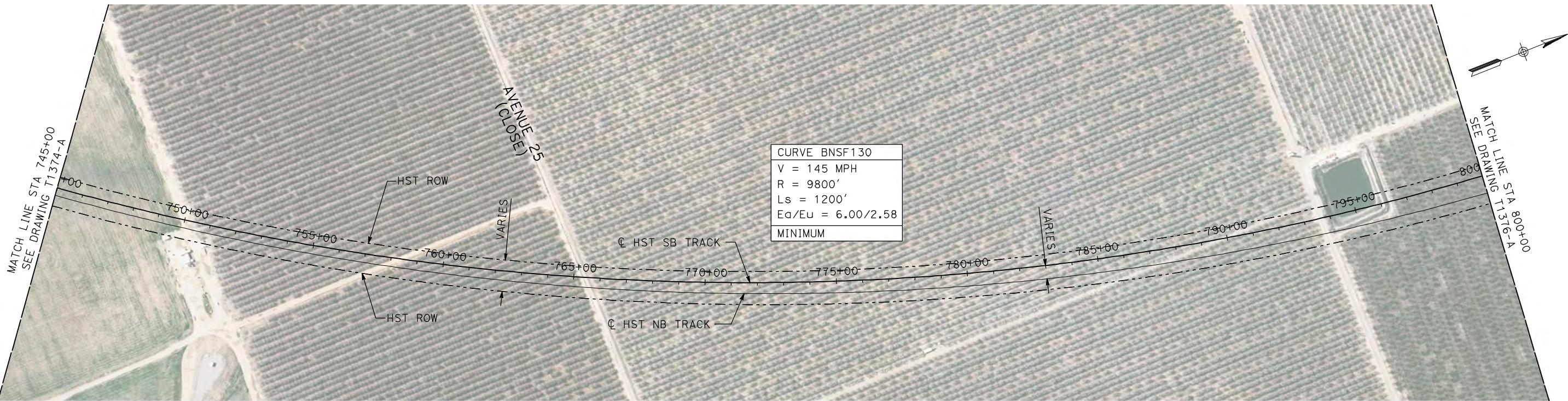


**CALIFORNIA  
HIGH-SPEED RAIL AUTHORITY**

**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
MERCED TO FRESNO**

BNSF WYE - SB CONNECTION  
AVENUE 24  
PLAN AND PROFILE  
STA 690+00 TO STA 745+00

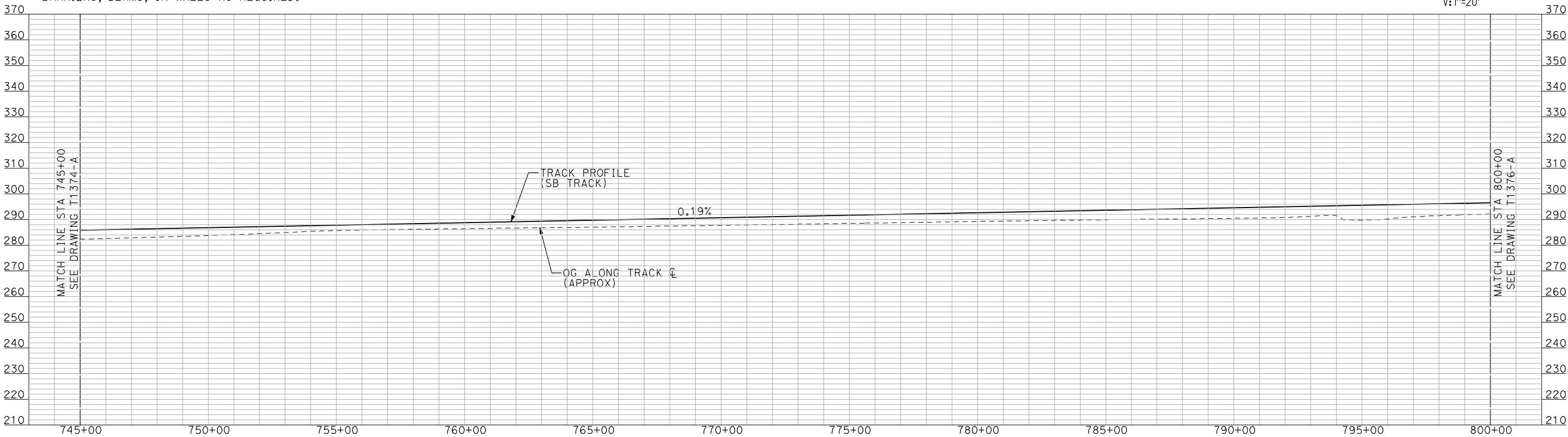
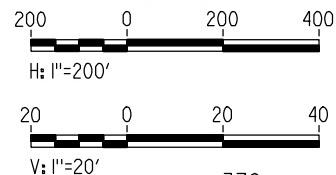
CONTRACT NO.  
HSR06-007  
DRAWING NO.  
T1374-A  
SCALE  
AS SHOWN  
SHEET NO.  
### OF ###



**NOTES:**

- ALL UTILITIES SHOWN ARE EXISTING UTILITY LINES BASED ON RECORD DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.
- TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

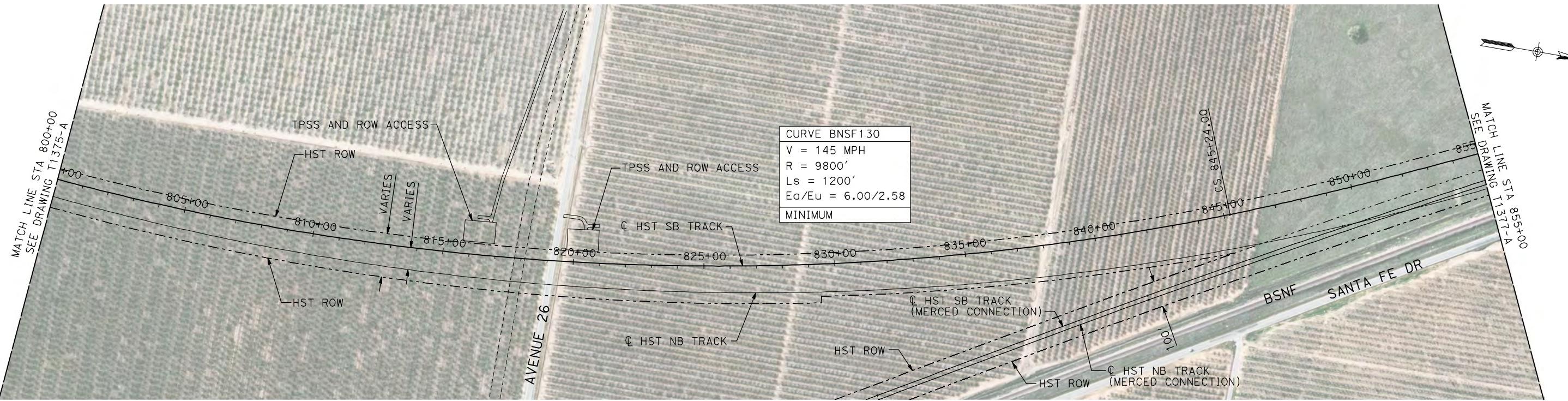
**PLAN**



**PROFILE**

"SEE T3000-T3017 DRAWINGS FOR TYPICAL SECTION LIMITS AND DETAILS"

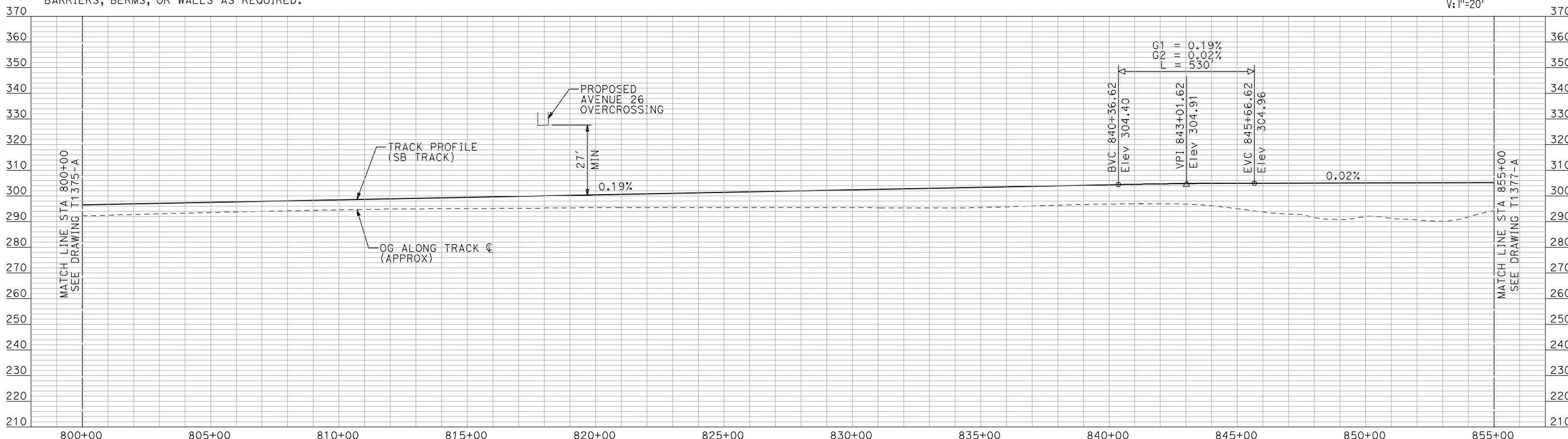
REV	DATE	BY	CHK	APP	DESCRIPTION	DESIGNED BY A. SHIELDS DRAWN BY H. SULLIVAN CHECKED BY A. BOONE IN CHARGE A. BOONE DATE 07/20/2011	RECORD SET 15% DESIGN SUBMITTAL  NOT FOR CONSTRUCTION	AECOM Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811  CH2MHILL	CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO  BNSF WYE - SB CONNECTION AVENUE 24 PLAN AND PROFILE STA 745+00 TO STA 800+00	CONTRACT NO. HSR-007  DRAWING NO. T1375-A  SCALE AS SHOWN  SHEET NO. ### OF ###
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**NOTES:**

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- TRACKS CLOSER THAN 102 FT TO THE NEAREST EXISTING FREIGHT TRACKS WILL INCLUDE SAFETY BARRIERS, BERMS, OR WALLS AS REQUIRED.

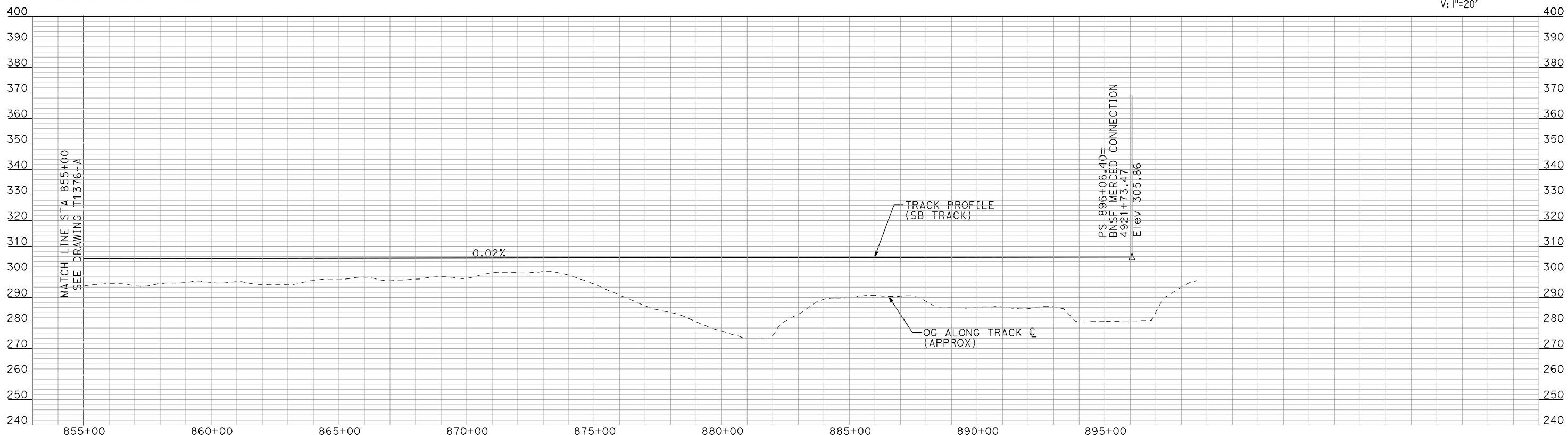
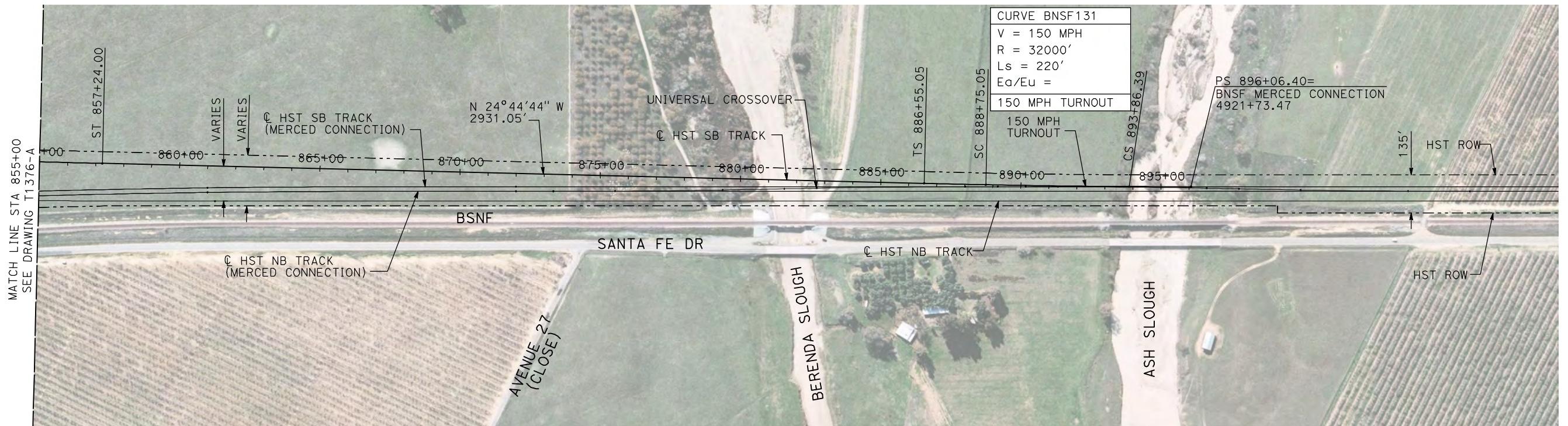
**PLAN**



**PROFILE**

"SEE T3000-T3017 DRAWINGS FOR  
TYPICAL SECTION LIMITS AND DETAILS"

DESIGNED BY A. SHIELDS	RECORD SET 15% DESIGN SUBMITTAL	AECOM Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811	CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO	CONTRACT NO. HSR06-007
DRAWN BY H. SULLIVAN	NOT FOR CONSTRUCTION	CH2MHILL	BNSF WYE - SB CONNECTION AVENUE 24 PLAN AND PROFILE STA 800+00 TO STA 855+00	DRAWING NO. T1376-A
CHECKED BY A. BOONE				SCALE AS SHOWN
IN CHARGE A. BOONE				SHEET NO. ### OF ###
DATE 07/20/2011				
REV DATE BY CHK APP	DESCRIPTION			



**PROFILE**

DESIGNED BY A. SHIELDS	RECORD SET 15% DESIGN SUBMITTAL	AECOM Technical Services, Inc. 2020 L Street, Suite 300 Sacramento, CA 95811	CALIFORNIA HIGH-SPEED TRAIN PROJECT MERCED TO FRESNO	CONTRACT NO. HSR06-007
DRAWN BY H. SULLIVAN	NOT FOR CONSTRUCTION	CH2MHILL	BNSF WYE - SB CONNECTION AVENUE 24 PLAN AND PROFILE STA 855+00 TO STA 896+06.40	DRAWING NO. T1377-A
CHECKED BY A. BOONE				SCALE AS SHOWN
IN CHARGE A. BOONE				SHEET NO. ### OF ###
DATE 07/20/2011				
REV DATE BY CHK APP	DESCRIPTION			